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- San Bernardino County Transportation Commission •San Bernardino County Transportation Authority
 - San Bernardino County Congestion Management Agency •Service Authority for Freeway Emergencies
-

DATE: May 7, 2008

TO: Consultants/Construction Management/Materials Testing/Construction Surveying Firms

FROM: Garry Cohoe, Director of Freeway Construction

SUBJECT: Construction Support Services for Project to Construct Direct Freeway to Freeway Connectors between State Route 210 (SR-210) and Interstate 215 (I-215) and Related Miscellaneous Improvements on I-215 from Massachusetts Avenue to University Parkway

Attached with this cover memorandum is our Request for Qualifications (RFQ) for Construction Support Services. The purpose of this RFQ is to select a firm to assist the San Bernardino County Transportation Authority (AUTHORITY) with construction of direct freeway to freeway connectors between SR-210 and I-215 and related miscellaneous improvements on I-215 from Massachusetts Avenue to University Parkway.

Those firms or individuals intending to submit Statement of Qualifications (SOQ) should note the schedule contained in Section XI of the attached document. It is our intention, subject to Board approval, to have the selected firm under contract by September 2008.

Firms will have access to preliminary contract documents from May 8, 2008 through June 17, 2008 by appointment only. Please contact Ms. Deanne Oberdank or Ms. Christine Coleman at (909) 884-8276 to schedule a review.

Individuals and firms submitting SOQ's for this project will be evaluated based on qualifications and experience on similar and relevant projects. Emphasis will be placed on the capabilities of key project individuals.

Also attached for your reference are the ***draft*** Scope of Services, a sample contract, and AUTHORITY's Contracting Policy. These items are available on AUTHORITY's internet website: www.sanbag.ca.gov under "Bids, RFPs and RFQ". Please check the website periodically for schedule updates.

Eight (8) copies of the SOQ must be submitted to AUTHORITY's San Bernardino office by **12:00 P.M., Wednesday, June 18, 2008.**

Statement of Qualifications and correspondence shall be directed to:

Mr. Garry Cohoe
Director of Freeway Construction
San Bernardino Associated Governments
1170 W. 3rd Street, 2nd Floor
San Bernardino, California 92410-1715

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All questions and comments regarding this Request for Qualifications or the project shall be directed to:

Mr. Abunnasr Husain
Project Manager
(909) 884-8276

GC: ASH
Attachment

cc: Jim Beers
File 1005.53.17

SAN BERNARDINO COUNTY TRANSPORTATION AUTHORITY

REQUEST FOR QUALIFICATIONS

FOR

**CONSTRUCTION MANAGEMENT,
MATERIALS TESTING, AND
CONSTRUCTION SURVEYING SERVICES**

FOR

STATE ROUTE 210/INTERSTATE 215 DIRECT CONNECTORS

IN

CITY OF SAN BERNARDINO

Contract C08183

Issued: May 7, 2008

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**SAN BERNARDINO COUNTY TRANSPORTATION AUTHORITY/
SAN BERNARDINO ASSOCIATED GOVERNMENTS**

REQUEST FOR QUALIFICATIONS

FOR

**CONSTRUCTION MANAGEMENT, MATERIALS TESTING, AND CONSTRUCTION
SURVEYING SERVICES**

I. INTRODUCTION

The San Bernardino Associated Governments (SANBAG), acting as the San Bernardino County Transportation Authority, in cooperation with the California Department of Transportation (Caltrans) and the City of San Bernardino is soliciting Statement of Qualifications (SOQ) from all qualified firms for Construction Management (CM) including Materials Testing and Construction Surveying services for project to construct direct freeway to freeway connectors between SR-210 and I-215 and related miscellaneous improvements on I-215 from Massachusetts Avenue to University Parkway.

The purpose of this RFQ is to select a consultant to assist SANBAG with construction support services, including construction management, materials testing, and construction surveying for the project to construct direct freeway to freeway connectors between SR-210 and I-215 and related miscellaneous improvements on I-215 from Massachusetts Avenue to University Parkway.

The contract will be awarded without discrimination based on race, religion, color, age, sex, or national origin.

II. PROJECT AND SERVICES DESCRIPTIONS

The SR-210/I-215 Direct Connectors project proposes to construct two high speed connectors from northbound I-215 to westbound SR-210 and from eastbound SR-210 to southbound I-215. Several other miscellaneous improvements are required to be constructed in association with the connectors and include: replacement of 27th Street, Highland Avenue, and Massachusetts Avenue Overcrossings over I-215; addition of one carpool lane in each direction on I-215 between approximately Massachusetts Avenue and SR-210/I-215 Interchange; addition of a general purpose lane on northbound I-215 and an auxiliary lane on southbound I-215 between SR-210/I-215 Interchange and University Parkway; ramp modifications at Massachusetts Avenue, Highland Avenue, and 27th Street; and multiple local streets modifications. The project is located in the City of San Bernardino.

SERVICES

Services are anticipated to generally include, but are not limited to, pre-construction plans, specifications, and estimate (PS&E) reviews; participation in and the evaluation of scheduling of

the proposed project; construction project advertising, bid analysis, and award; construction inspection; contractor interface and contract administration; office engineering; and other assorted duties as appropriate for construction management, as well as materials testing and construction surveying. The detailed scope of services is included as draft Attachment A to the draft contract.

It is recommended that, in addition to a Project Manager, a single point of contact or Resident Engineer be assigned to direct and coordinate all field activities under this contract. Other Assistant Resident Engineers may be assigned to specific responsibilities as needed. Insofar as the Consultant's approach described in the SOQ, the scope of responsibility and the total number of personnel assigned to each project is left to the discretion of the Consultant. Each Statement of Qualifications shall include a preliminary staffing plan *and* an organization chart.

The Consultant shall provide evidence of the firm's ability to adequately and appropriately staff and manage the project. The Consultant should demonstrate its understanding of the scope and project approach for the project. The selected consultant shall provide CM, materials testing and construction surveying for the project.

III. MATERIALS FURNISHED BY SANBAG

All software, data, reports, surveys, drawings, and other documents furnished to the Consultant by SANBAG for the Consultant's use in the performance of services shall be made available only for use in performing the assignment and shall remain the property of SANBAG. All such materials shall be returned to SANBAG upon completion of services, termination of the Agreement, or other such time as SANBAG may determine.

IV. CALTRANS AND LOCAL AGENCY RELATIONSHIP

The SR-210/I-215 Direct Connectors Project is a local project with Caltrans oversight. SANBAG is the project sponsor. Caltrans and SANBAG will cooperatively work together and with the City of San Bernardino for the construction of the project. However, the project will be implemented by a construction contract awarded and administered by SANBAG. SANBAG will be responsible for, and will be the sole point of contact for all contractual matters. The Consultant shall take direction only from SANBAG and shall regularly inform SANBAG, Caltrans, and the City of San Bernardino of construction progress and outstanding issues.

V. CONTRACT TYPE

A cost reimbursable plus percentage fee contract, with a total not to exceed amount, will be issued for the contract. Any services provided by the Consultant, which are not specifically covered by the Contract, will not be reimbursed. It is the Consultant's responsibility to recognize and notify SANBAG when services not covered under the Contract have been requested.

The terms of the Contract will be effective for the duration of the project.

VI. MINORITY BUSINESS OPPORTUNITIES

Due to the absence of Federal funding for this contract, no goals have been established for Disadvantaged Business Enterprise (DBE), Women-owned Business Enterprise (WBE) or Disabled Veterans Business Enterprise (DVBE) participation. **Although there is no specific goal, small business participation is encouraged.**

VII. STATEMENT OF QUALIFICATIONS INSTRUCTIONS

Statement of Qualifications (SOQ) will be accepted until **12:00 PM, Wednesday, June 18, 2008**. Eight (8) copies are required. SANBAG reserves the right to accept or reject late SOQs at its discretion. Acceptance of a late submittal shall not be construed to mean that SANBAG will accept any late SOQ. SOQs shall be delivered to:

Mr. Garry Cohoe
Director of Freeway Construction
San Bernardino Associated Governments
1170 W. Third Street, Second Floor
San Bernardino, CA 92410

SOQs must contain the information listed below and must be compiled in the following format:

A. Cover Letter

Provide the following information:

- A statement requesting SANBAG to evaluate the submitted SOQ based upon the Scope of Services for the SR-210/I-215 Direct Connectors Project.
- Summary description of the work to be performed by firm and each subconsultant firm proposed for the project and an estimate of the percentage of work to be performed by each firm.
- Indicate the location of the office from which the construction management team will be managed.
- In accordance with SANBAG Policy No. 11000-R10, Sect. 7.A.2.f, provide a response to the following question: Has your firm ever been terminated from a contract? If the answer is yes, see item B below.
- A memorandum from a principal from each subconsultant firm indicating the specific portion of services the subconsultant will be performing.

B. Contract Termination Circumstances:

If consultant has ever been terminated from a contract, describe the facts and circumstances in detail, on a separate sheet. See policy for details.

C. U.S. General Services Administration Standard Form SF330:

“Architect-Engineer Qualifications”. The Form SF330 must conform to the following format:

1. Provide a separate Form SF330 for the prime consultant and each subconsultant. Subconsultants need not supply Sections C and H.
2. Prime consultants should list subconsultants in Section C.
3. Provide an Organizational Chart in Section D:
 - Show the relationships between personnel and support staff who are expected to participate on the project.
 - For each person, indicate the firm with whom they are employed.
 - Show the aspects of the services each person will be responsible for performing.
4. List key personnel in Section E. Section E must conform to the following requirements:
 - Every person whose resume is provided in Section E must also be shown on the organizational chart. Resumes of persons who are not shown on the organization chart will not be considered.
 - Section E, number 13 must describe the function the person will be expected to fulfill in connection with the project.
 - Section E, number 17 must list the person's active registrations in California, with the California Registration Number. Personnel (Resident Engineers / Inspectors) in responsible charge of Construction Management Services must be registered Civil Engineers in the State of California.
 - Section E, number 19 should provide a brief history of each person's relevant project experience, including descriptions of his/her role and tasks that he/she performed on each project. Also, identify key tasks each person is expected to perform for this project under his/ her assigned function.
5. Section F should conform to the following requirements:
 - Projects listed in Section F must be projects worked on by personnel shown on the organizational chart and whose resumes are included in Section E. For each project listed, the personnel included in Section E who worked on the project and their project position must be shown.
 - In Section F, number 23, include the owner's telephone number and the name of a contact person who can provide a reference. Also include the name and telephone number of the primary contact for the prime consultant, if necessary. Projects without references and telephone numbers will not be considered. List no more than ten projects.
 - In Section F, number 24, indicate the project value, the contract value, and the respective values (project and contract) for which the firm was responsible, describe the nature of the firm's responsibility and indicate whether the firm was the prime consultant or a subconsultant.
 - Additional information may be provided in Section F to highlight or expand on experience from projects that are especially applicable to the proposed Scope of Services, including an indication of the scope of related services for which the consultant was responsible.

6. In Section G, indicate the relationship of personnel shown on the proposed organization chart to the example projects.
7. Section H should demonstrate the consultant's approach and understanding of the proposed scope of services. This section should provide a detailed discussion of the work tasks and management activities necessary for project completion. A preliminary staffing plan based upon SANBAG's preliminary schedule should be included. Discussion topics for consideration may include:
 - Key project issues, constraints, and critical path items.
 - Narrative discussing team organization, coordination, and information flow in reference to the proposed organizational chart.
 - Technical and proactive approaches to key services.
 - Unique team experience applicable to the proposed Scope of Services.
 - Flexibility of proposed roles and responsibilities.
 - Quality Assurance and Control.
 - Project management, control capabilities, and procedures.
 - Plan reviews and response procedures.
 - Concurrent assignment of proposed key consultant and subconsultant personnel on other projects.

Where the Scope of Services does not adequately define the tasks required to provide complete professional services, provide descriptions of recommended additional services and programs.

D. Contract Comments:

Provide a written discussion of any objections or concerns relative to the Terms and Conditions of SANBAG's contract. Please note that SANBAG reserves the right to disqualify any consultant that does not provide a complete written discussion of its contractual objections or to disqualify any consultant based on objections that SANBAG considers non-negotiable. SANBAG does not anticipate making substantive changes to its Terms and Conditions.

E. Entire Statement of Qualifications:

The Consultant's SOQ package is limited to 45 (8 ½" x 11") pages single-sided. The page limit does not include the outside cover, section dividers, cover letters and subconsultant commitment memorandum, contract comments, or duplication of the organizational chart. SOQs that do not contain the required information or do not contain the required number of copies (eight) will not be accepted.

F. Changes:

During the selection process, any changes in key consultant or subconsultant personnel proposed in the SOQ must be brought to the attention of SANBAG immediately.

VIII. CONSULTANT SELECTION

The primary objective of SANBAG is to select highly qualified firms to perform necessary professional services for SANBAG at a fair and reasonable cost. Consultants may obtain a copy of the consultant selection policy by accessing the SANBAG website. In addition, SANBAG has established the following criteria for the selection process:

- A. The selection process shall be fair, open, and competitive.
- B. The selection of the consultant firms will be based on clearly stated objectives.
- C. Selection of private consultants/firms shall be based upon demonstrated competence, professional qualifications, experience, and capabilities to perform the required services at a fair and reasonable price to SANBAG, rather than competitive bidding process.
- D. Upon review of the SOQs, a shortlist of firms will be invited to prepare for an interview. The pending contract will be awarded to the responsible, responsive firm best conforming to the RFQ, and is in the opinion of SANBAG, most advantageous to SANBAG. SANBAG reserves the right to reject any and all SOQs and to negotiate with any responsible, responsive firm. SANBAG is under no obligation to issue contracts for the subject services.

IX. NEGOTIATIONS AND ENGAGEMENT

Following the selection of a consultant, the selected firm will submit a cost proposal and participate in contract negotiations with SANBAG staff.

The final contract and Scope of Services will be negotiated. Consultants are encouraged to include in their SOQ any comments relating to the Scope of Services and/or the terms and conditions of SANBAG's standard contract. In addition, Consultants are reminded that *any* comments regarding the Terms and Conditions of SANBAG's standard contract must be noted in the SOQ. SANBAG reserves the right to disqualify any firm that does not provide written discussions of any disagreements it has relative to SANBAG's Terms and Conditions. SANBAG does not anticipate making any substantive changes to its Terms and Conditions.

X. CONFLICT OF INTEREST

The selected consultant will not be prevented from participating in future projects to the extent that no direct conflict of interest exists at the time. Consultants responsible for a project's design may not participate in construction management/construction inspection of the project. The determination of a conflict of interest, direct or incidental, shall be at the sole discretion of SANBAG.

XI. SCHEDULE FOR CONSULTANT SELECTION

Issue Request for Qualifications
Statement of Qualifications Due

May 07, 2008
June 18, 2008

Shortlist and Notify Consultants (Anticipated)	July 03, 2008
Interview Shortlisted Consultants (Anticipated)	July 17, 2008
Select Consultant (Anticipated)	July 17, 2008
Contract Cost Proposal Due (Anticipated)	July 24, 2008
Major Projects Committee Approval (Anticipated)	August 14, 2008
SANBAG Board Approval (Anticipated)	September 03, 2008
Notice to Proceed (Anticipated)	September 15, 2008

Dates are subject to change. Schedule updates will be posted on SANBAG's internet website: www.sanbag.ca.gov under "Bids, RFPs and RFQs".

Contact List:

Appointment/Document Requests:	Deanne Oberdank or Christine Coleman	(909) 884-8276
Questions/Comments:	Abunnasr Husain	(909) 884-8276

ATTACHMENT “A”

Scope of Services

By and between

**San Bernardino Associated Governments/
San Bernardino County Transportation Authority**

And

TBD

To

**Provide Construction Management, Materials Testing, and Construction
Surveying Services**

For

State Route 210/Interstate-10 Direct Connectors Project

City of San Bernardino

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A. DESCRIPTION OF SERVICES

The San Bernardino Associated Governments (SANBAG) will utilize the services of CONSULTANT to support the construction activities as described below. The scope of services is for the project to construct direct freeway to freeway connectors between SR-210 and I-215 and related miscellaneous improvements on I-215 from Massachusetts Avenue to University Parkway, which is anticipated to go out to bid in the Summer of 2009. CONSULTANT will provide construction management, materials testing, and construction surveying for the project. A description of the project is given below.

STATE ROUTE 210/INTERSTATE-10 DIRECT CONNECTORS PROJECT

The SR-210/I-215 Direct Connectors project proposes to construct two high speed connectors from northbound I-215 to westbound SR-210 and from eastbound SR-210 to southbound I-215. Several other miscellaneous improvements are required to be constructed in association with the connectors and include: replacement of 27th Street, Highland Avenue, and Massachusetts Avenue Overcrossings over I-215; addition of one carpool lane in each direction on I-215 between approximately Massachusetts Avenue and SR-210/I-215 Interchange; addition of a general purpose lane on northbound I-215 and an auxiliary lane on southbound I-215 between SR-210/I-215 Interchange and University Parkway; ramp modifications at Massachusetts Avenue, Highland Avenue, and 27th Street; and multiple local streets modifications. The project is located in the City of San Bernardino.

CONSULTANT shall provide qualified construction management and inspection, materials testing and construction surveying personnel to perform a wide variety of construction management and support and contract administration duties as outlined in this Scope of Services for the Project.

The SANBAG Contract Manager for this contract will be:

Mr. Garry Cohoe
Director of Freeway Construction

SANBAG has selected Fluor Corporation as Program Manager for the Measure I Valley Major Projects. As part of the overall SANBAG/Fluor Program Management staff, SANBAG has also designated a Construction Manager to coordinate all construction activities. The CONSULTANT shall report to and receive direction from SANBAG through the Contract Manager, or his designees. The SANBAG Construction Manager is responsible for coordination of all SANBAG construction activities and for coordinating the efforts of the total construction team. The SANBAG Construction Manager will be the main contact and primary source of information between SANBAG, outside agencies, supporting consultants and the public for the construction projects.

B. PERFORMANCE REQUIREMENTS

Construction Management: CONSULTANT shall furnish a Project Manager to coordinate CONSULTANT operations with SANBAG. The Project Manager shall be responsible for all matters related to CONSULTANT personnel and operations. It is recommended that, in addition to a Project Manager, a single point of contact or Resident Engineer be assigned to direct and coordinate construction activities under this contract. Other Assistant Resident Engineers may be assigned to each specific project responsibilities as needed. Resident Engineer shall be a Civil

Engineer, registered in the State of California. The Resident Engineer shall be in responsible charge of construction activity within the Project. If the Resident Engineer is not also a registered Landscape Architect, a Landscape Architect shall be assigned as an Assistant Resident Engineer responsible for daily on-site inspections and decisions regarding any highway planting and irrigation systems that may comprise a portion of the Project.

The number of CONSULTANT personnel assigned to the project will vary throughout the duration of the contract. CONSULTANT personnel will be assigned, in varying levels of responsibility, as needed by the CONSULTANT to meet the project schedule, project requirements, and construction activities.

Resumes of personnel must be submitted to SANBAG for review and approval prior to assignment to the Project. SANBAG and CONSULTANT will jointly determine the quality and quantity of services that are required by CONSULTANT personnel. Personnel selected for assignment by CONSULTANT shall be made available for personal interviews prior to acceptance by SANBAG. If, in the opinion of SANBAG, an individual lacks adequate experience, the individual may be rejected or may be accepted on a trial basis until such time the individual's ability to perform the required services has been demonstrated. If, at any time, the performance of CONSULTANT personnel is unsatisfactory to SANBAG, SANBAG may release him/her by written notice and may request another qualified person be assigned.

If CONSULTANT personnel are on leave of absence, the Project Manager shall provide approved, equally qualified replacement personnel until the assigned personnel returns to the Project.

The typical workday includes all hours worked by the construction Contractor. If necessary, overtime for CONSULTANT personnel may be required. The construction Contractor's operations may be restricted to specific hours during the week, which shall become the normal workday for CONSULTANT personnel. The Project Manager, with concurrence from SANBAG, shall have the authority to increase, decrease, or eliminate CONSULTANT personnel work hours dependent on the schedule and requirements of the construction Contractor. All overtime required by CONSULTANT personnel shall be approved and authorized by SANBAG prior to each occurrence.

CONSULTANT personnel shall be knowledgeable of and comply with all applicable local, state, and federal regulations. CONSULTANT personnel shall cooperate and consult with SANBAG, State, and City officials during the course of the Project. CONSULTANT personnel shall perform duties as may be required to assure that construction is being performed in accordance with the Project plans and specifications. CONSULTANT personnel shall keep accurate and timely records and document all work performed by the Contractor and CONSULTANT.

CONSULTANT shall monitor for Contractor's compliance with the labor standards provisions of the projects and the related wage determination decisions of the Secretary of Labor.

CONSULTANT personnel shall assist SANBAG and local agencies in obtaining compliance with the safety and accident prevention provisions of the projects. Local agencies will retain jurisdictional control for traffic control.

All services required hereunder shall be performed in accordance with California Department of Transportation guidelines, regulations, policies, procedures, manuals, and standards, except as noted in the special provisions.

Materials Testing: The number of field testing personnel assigned to the project will vary throughout the duration of the construction contract. CONSULTANT personnel will be assigned as needed by the Resident Engineer to meet the schedule of the construction contractor.

It is anticipated that at least one field technician will be required throughout the construction contract period. At times, additional technicians may be required to provide support for on-going construction activities. The duration of assignments could vary from a minimum of a few days to the full term of the project. CONSULTANT personnel will be available within one (1) day of written notification by SANBAG.

It is the intent of SANBAG to maintain a consistency of material testing quality throughout each phase of each project. CONSULTANT is therefore encouraged to provide, where ever and whenever possible, the same field personnel for the duration of construction of each project.

On days when work is not performed by the construction contractor, such as rainy or unsuitable weather days, CONSULTANT will not provide services unless authorized by the SANBAG Construction Manager.

Resumes of materials testing personnel must be submitted to SANBAG for review and approval prior to assignment to the Project. If, at any time, the level of performance of any testing personnel is below expectations, SANBAG may release that field person and request that another be assigned as needed.

If a member of CONSULTANT's personnel is on a leave of absence, CONSULTANT's project manager will provide an equally qualified replacement employee until the original member returns to work. The replacement employee will meet all the requirements of a permanently assigned employee.

All personnel will be knowledgeable of, and comply with, all applicable local, Caltrans, Burlington Northern Santa Fe Railroad and federal regulations; cooperate and consult with SANBAG and local agency officials during the course of the contract; and perform other duties as may be required to assure that the construction is being performed in accordance with the project plans and specifications. CONSULTANT's personnel will keep records and document the work as directed by the Resident Engineer.

CONSULTANT shall monitor for Contractor's compliance with the labor standards provisions of the projects and the related wage determination decisions of the Secretary of Labor.

CONSULTANT personnel shall assist SANBAG and local agencies in obtaining compliance with the safety and accident prevention provisions of the projects. Local agencies will retain jurisdictional control for traffic control.

All services required hereunder will be performed in accordance with Caltrans regulations, policies, procedures, manuals, and standards.

Construction Surveying: CONSULTANT will furnish surveying crew(s) to perform construction surveys for the project. The number of survey crew(s) assigned to the project will vary throughout the duration of the construction contract. CONSULTANT personnel will be assigned as needed by the Resident Engineer to meet the schedule of the construction contractor.

It is the intent of SANBAG to maintain a consistency of construction survey quality throughout each phase of each project. Therefore, CONSULTANT is encouraged to provide the same field personnel for the duration of construction. It is important that the Field Party Chief(s) assigned to a project be completely familiar with the survey requirements and the assignments for the project.

On days when work is not performed by the construction contractor, such as rainy or unsuitable weather days, CONSULTANT will not provide services unless authorized by the Resident Engineer.

Construction surveying will not be performed when conditions such as weather, traffic, and other factors prevent safe and efficient operation.

Resumes of CONSULTANT personnel and certification must be submitted to SANBAG for review. CONSULTANT personnel must be approved by SANBAG prior to assignment to a project. SANBAG and CONSULTANT will have the responsibility of determining the quality and quantity of work performed by CONSULTANT personnel. If, at any time, the level of performance by CONSULTANT personnel is below expectations, SANBAG may release the survey crew member and request that another be assigned.

If CONSULTANT's survey crew personnel assigned to the project is on a leave of absence, the Project Manager will provide an equally qualified replacement(s) until the original employee(s) returns to work. The replacement will be required to meet all the requirements of the permanently assigned employee.

CONSULTANT personnel will:

- Be knowledgeable of, and comply with all, applicable local, Caltrans, state, and federal regulations.
- Cooperate and consult with SANBAG officials during the course of the contract.
- Perform duties as may be required to assure construction is performed in accordance with the project plans and specifications.
- Keep records and document work as directed by the Resident Engineer.

All services required hereunder will be performed in accordance with Caltrans regulations, policies, procedures, manuals, and standards.

C. DUTIES AND RESPONSIBILITIES

Where the terms "Project" and "Contractor" are used herein, they shall apply to both contracts and contractors.

1. Pre-construction Services

a. Plan Review

CONSULTANT shall review construction contract documents prior to construction. Tasks include review of plans, specifications, technical reports, resident engineer's pending files, and associated items in order to verify completeness and consistency throughout the Project. At minimum, CONSULTANT shall check for quantity discrepancies, potential conflicts, constructability, and consistency between plans, specifications and pay items.

b. Schedule

CONSULTANT shall review the proposed Project schedule, compare it to the Project plans and specifications, and provide recommendations to SANBAG, as appropriate, to ensure efficiency of Contractor and CONSULTANT operations and safe and expeditious completion of the Project.

c. Budget

CONSULTANT shall review the Project estimate and provide recommendations to SANBAG, as appropriate, to ensure efficient utilization of funds and control of project costs.

2. Bid Process

a. Bid Documents

CONSULTANT shall assist SANBAG, as requested, with the following tasks:

1. Review of bid documents
2. Preparation of bid tabulations

b. Pre-construction Meetings

CONSULTANT shall assist SANBAG in conducting one or more, pre-construction meetings with all involved parties on the Project. Parties may include, but are not limited to, the Contractor, the design engineer, Caltrans, utility companies, and developers.

c. Contract Award

CONSULTANT shall assist SANBAG, as requested, with the following tasks:

1. Review of bid for completeness and responsiveness
2. Perform bid analysis
3. Development of contractor payment schedules, and other procedural items.
4. Checking Contractor references, licenses, insurance, and sureties.
5. Coordination with prospective Contractor for award of construction contract(s).

All processes will be consistent with procedures outlined by the California Department of Transportation Standards.

3. Project Administration

- a. CONSULTANT shall administer project construction contracts using Caltrans Construction Manual as a guideline.
- b. CONSULTANT shall conduct regular project coordination meetings with Contractor, SANBAG, local agencies, and design engineer, as appropriate.
- c. CONSULTANT shall prepare Contractor progress payments and maintain payment records and supporting documentation. All progress payments shall be reviewed by SANBAG for approval.
- d. CONSULTANT shall establish and maintain Project records. Project record keeping shall include, but are not limited to, correspondence, memoranda, contract documents, change orders, claims, SANBAG and engineer directives, meeting minutes, shop drawings, supplementary drawings, and requests for payment. CONSULTANT shall maintain a record of the names, addresses, and telephone and fax numbers of the Contractors, subcontractors, and principal material suppliers.
- e. CONSULTANT shall establish and maintain a filing system for each Project using the Caltrans Construction Manual as a guideline.
- f. CONSULTANT shall monitor Contractors' construction schedules on an ongoing basis and alert SANBAG to conditions that may lead to delays in completion of the Project.
- g. CONSULTANT shall prepare and submit a monthly Activity Summary Report for each project. The activity report shall include construction activity, accomplishments, and status of project budget and schedule.
- h. CONSULTANT shall review and ensure compliance with environmental requirements.
- i. CONSULTANT shall participate in partnering sessions with the Contractor, SANBAG, and Local Agencies, as required.
- j. CONSULTANT shall ensure that the Project meets all provisions of the Caltrans Quality Assurance Program Manual.
- k. CONSULTANT shall review Contractors' certified payroll records and assist SANBAG with labor compliance.
- l. CONSULTANT shall ensure that the Project meets all provisions of the Storm Water Pollution Prevention Plan (SWPPP).
- m. CONSULTANT shall assure that the Project meets all applicable regulations of the Air Quality Management District (AQMD).

4. Construction Coordination

- a. CONSULTANT shall provide a minimum of one qualified Senior Resident Engineer and other qualified Resident Engineers, as needed to effectively manage the Project.
- b. CONSULTANT Resident Engineer shall act as a prime point of contact between Contractor, SANBAG, CONSULTANT's construction surveyor, CONSULTANT's materials inspector, and utility companies. CONSULTANT may, when requested by SANBAG, act as point of contact between design engineers, cities, and the public.
- c. CONSULTANT shall maintain regular contact with SANBAG's Construction Manager.
- d. CONSULTANT shall coordinate utility relocations with utility companies and their designees, as well as the utility inspector.
- e. CONSULTANT shall review Project plans and special provisions for possible errors and deficiencies prior to construction of any specific element and report such findings to SANBAG. Should SANBAG determine that changes are necessary, CONSULTANT shall assist in implementation and processing of change orders in accordance with contract documents.
- f. CONSULTANT shall provide all required monitoring, coordination, and tracking of construction progress to ensure the Project proceeds on schedule and according to the order of work in the plans and special provisions. CONSULTANT shall expedite work, as required, to maintain schedule in conjunction with the overall construction staging program.
- g. CONSULTANT shall coordinate review of shop drawings and Requests for Information (RFI) with the Construction Manager. CONSULTANT shall log and track all submittals and requests.
- h. CONSULTANT shall provide a qualified SWPPP coordinator who shall review contractor prepared Storm Water Pollution Prevention Plans (SWPPP) and coordinate approval with SANBAG. CONSULTANT shall cooperate with monitoring agency inspections and field reviews.
- i. CONSULTANT shall coordinate the implementation of any changes with the Construction Manager and the design engineer.
- j. CONSULTANT shall review and approve falsework and shoring plans.
- k. CONSULTANT shall review and approve Traffic Control Plans and forward to SANBAG to get City/County approval as necessary.
- l. CONSULTANT shall coordinate all Project construction activities with other on-going projects within and adjacent to the Project limits.

5. Construction Inspection

- a. CONSULTANT shall coordinate all required inspections necessary for the Project. CONSULTANT shall ensure that appropriate City, local agency, and railroad personnel are notified and present as required throughout the Project. CONSULTANT shall notify SANBAG immediately regarding any directives, recommendations, notices, etc. received from agencies other than SANBAG.
- b. CONSULTANT shall perform daily on-site observations of the progress and quality of construction to determine if the work being performed is in general conformance with the contract documents, all applicable laws, codes, and ordinances.
- c. CONSULTANT shall exercise reasonable care and diligence to discover and promptly report to SANBAG any and all defects or deficiencies in the materials or workmanship used in the Project.
- d. CONSULTANT personnel assigned to the Project shall be thoroughly familiar with Caltrans Standard Specifications, Caltrans Standard Plans, Caltrans Erosion Control and Highway Planting requirements, and BNSF construction and safety standards. CONSULTANT personnel shall have the ability to read and interpret construction plans and specifications. CONSULTANT personnel shall also have knowledge of State of California Construction Safety Orders (CalOSHA) and traffic control practices as specified in the Work Area Traffic Control Handbook (WATCH). In addition, CONSULTANT personnel shall be familiar with the construction requirements of Storm Water Pollution Prevention Program.
- e. Assignments to be performed by CONSULTANT personnel shall include, but are not limited to, the following:
 1. Paving and subgrade inspection, structures and foundation inspection, signing and striping inspection, quantity calculations, checking grade and alignment, construction traffic control, and duties that may be required to determine that construction of the Project is being performed in accordance with the contract documents.
 2. Identifying actual and potential problems associated with the Project and recommending sound engineering solutions.
 3. Maintaining awareness of safety and health requirements. Monitoring Contractors' compliance with applicable regulations and construction contract provisions for the protection of the public and Project personnel.
 4. Preparing complete and accurate daily reports, calculations, project records, payment quantity documents, reports, and correspondence related to Project activities.
 5. Preparing construction sketches, drawings, and cross-sections, as necessary.
 6. Assisting in the preparation of as-built plans.

7. Providing inspections for environmental compliance.
 8. Maintaining awareness of water discharge requirements. Monitoring Contractors' compliance with applicable regulations and construction contract provisions.
 9. Monitoring Contractors' compliance with applicable regulations required by AQMD.
 10. Other duties as may be required or reasonably requested.
6. Project Support
- a. Construction Surveys

CONSULTANT shall perform construction surveying services, field calculations, and home office calculations to support construction of the projects. CONSULTANT may be requested to review available survey data, construction plans, and right-of-way plans to confirm compatibility and to identify discrepancies prior to and during construction of proposed projects. The Resident Engineer will assign survey work to the CONSULTANT by issuing a "Request for Survey Services". Requests may include, but not be limited to, the following types of surveys and related services:

I. Construction Surveys

CONSULTANT shall assist the Resident Engineer in all phases of construction staking and calculations as needed.

- a. Survey calculations and adjustments shall be performed with established and computed coordinates based on the California Coordinate System.
- b. Cross-section data collection shall be performed by conventional and terrain line interpolation survey methods.
- c. Survey data will include topography, cross-section, and other survey data in computer formats compatible with the Caltrans computer survey and design systems.
- d. Prepare and maintain survey documents. Survey documents include survey field notes, maps, drawings, and other survey documents.
- e. Perform construction staking, including but not limited to:
 - Utility relocations
 - Clearing limits
 - Slope staking
 - Storm drain, sanitary sewer, and irrigation systems
 - Drainage structures
 - Curbs, gutters, and sidewalk

- Horizontal and vertical control for structures and portions of structures (bents, abutments, wingwalls, etc.)
- Rough grade
- Finish grade

f. Monitor for settlement if required

g. Global Positioning Satellite (GPS) equipment shall be made available if required by SANBAG

II. Grid Grades

Grid grade data shall provide pavement elevations at the station line, the left edge of pavement, the right edge of pavement, and the right edge of travel way at 25 foot intervals for travel lanes.

III. Open Ended Traverses and Profile Data Sheets

Separate open-ended traverse calculations and point maps shall depict plan data for station lines, utility lines, wall layout lines, and abutment/bent alignment. Specific information to be shown will be part numbers, coordinates, bearings, and curve data.

Profile data sheets are required for all profiles shown on the plans identifying vertical design elements such as grade, point of intersection (PI) location, beginning of vertical curve (BVC) location, end of vertical curve (EVC) location, and curve length.

IV. Three Line Profiles

Separate profile plots are required for the left edge of pavement, the right edge of pavement, and the edge of shoulder for all travel lanes.

V. Right of Way Lines

Existing right of way and easements will be established from Local Agency's record information and existing monumentation.

- Right of way monumentation shall be renewed and restored in accordance with Section 10.4 of the Caltrans "Survey Manual" and the State of California Land Surveyor's Act.
- Corner records and records of surveys shall be prepared and filed in accordance with the applicable standards and the State of California Land Surveyor's Act.
- Perpetuate existing monumentation.
Includes restoring, renewing, referencing, and resetting existing boundary related monumentation. In addition, stake areas where construction disturbs the existing right of way, preparing and filing

required maps and records.

New right of way and easements will be established from plans, right of way maps, utility drawings, and Local Agency record information, and existing monumentation.

- Right of Way Surveys
Includes research and preparation filing of required maps and records. In addition, locate and set monuments for right of way and easement lines, staking for right of way and easement fences.
- Final monumentation
Includes setting of centerline points of control upon completion of construction.

VI. Special Design – Data Surveys

Includes drainage, utility, and surveys required for special field studies.

VII. Control Survey

Includes project control surveys, aerial mapping control surveys, horizontal and vertical control surveys. In addition control surveys will include restoration, renewal, reference, relocation, and resetting of existing control monumentation. The CONSULTANT will be required to provide horizontal and vertical control at the end of each bridge.

VIII. Topographic Surveys

Topographic surveys will normally be compiled by ground survey methods only. CONSULTANT will provide all necessary Project related surveys and construction staking, including horizontal and vertical control, right of way, and easements. CONSULTANT shall coordinate all staking and verify accuracy. CONSULTANT shall ensure timely coordination of all staking requests from the Contractor.

b. Materials Testing and Geotechnical Services

CONSULTANT will provide experienced personnel, equipment, and facilities to perform various construction materials sampling and testing. Laboratory and field materials testing will be used to ensure that structure and roadway construction work conforms to California State Department of Transportation (Caltrans) standards, specifications, and special provisions for material quality and workmanship.

All field and laboratory testing is to be performed in accordance with California Test Methods.

CONSULTANT will be responsible for the accuracy and completeness of all test

data compilation and results.

c. Public Relations

SANBAG will retain a public relations firm to implement a public awareness program for the project. SANBAG shall coordinate public awareness for the project directly in conjunction with the City. The SANBAG Public Information Officer (PIO) will manage all public awareness activities for the Project. CONSULTANT shall cooperate with SANBAG's PIO and its public relations firm in the dissemination of appropriate Project information as appropriate. Should CONSULTANT Resident Engineer receive complaints from the public or other entities, he/she shall promptly notify SANBAG's PIO. CONSULTANT shall maintain a log of all complaints and inquiries. When appropriate, CONSULTANT shall direct the Contractor to remedy complaints in a timely manner.

d. Permits

CONSULTANT shall review the project for permit compliance and coordinate with SANBAG and the design engineer to ensure that necessary permits are obtained. CONSULTANT shall assist SANBAG in the coordination, timely processing and verification of approval for all permits. CONSULTANT shall maintain permits and permit documentation on site.

7. Cost and Schedule

a. CONSULTANT shall monitor and track the following:

1. Contract pay item quantities and payments
2. Contract change orders
3. Supplemental work items
4. Agency furnished materials
5. Contingency balance
6. Project budget

b. CONSULTANT shall review and monitor Contractor's schedule and inform SANBAG of any significant changes or deviations in the schedule.

c. CONSULTANT shall provide and maintain a Project staffing plan of field office personnel. In cooperation with SANBAG, the staffing plan shall be periodically updated to reflect Project progress and needs.

8. Contract Change Orders and Claims

a. CONSULTANT shall receive and evaluate requests for changes and/or substitutions by the Contractor. Contract Change Orders submitted to SANBAG shall be accompanied by CONSULTANT recommendations. Where applicable, CONSULTANT shall convey proposed changes to design engineer, or other project consultants. If the requested changes are accepted, CONSULTANT shall negotiate and prepare appropriate Contract Change Orders.

- b. CONSULTANT shall attempt to avoid all unnecessary Contract Change Orders. When a Contract Change Order is necessary, CONSULTANT shall consult with SANBAG prior to its preparation. Unless directed otherwise by SANBAG, the preferred method of payment for Contract Change Orders should be as follows
 - 1. Agreed Price
 - 2. Adjustment in compensation to a bid item
 - 3. Time and materials or Force Account
- c. CONSULTANT shall attempt to identify all potential claims, track and monitor unresolved claims, and implement claims avoidance processes.
- d. CONSULTANT shall assist SANBAG, as requested, in the identification, resolution, and final disposition of claims filed by the Contractor or third parties against SANBAG or the Project.

9. Safety

In addition to the requirements specified elsewhere in this contract, the following shall also apply:

- a. CONSULTANT shall implement and conduct a comprehensive safety program including regular tail-gate safety meetings for CONSULTANT personnel. CONSULTANT shall provide monthly CONSULTANT status of safety reports.
- b. CONSULTANT shall comply with State of California Construction Safety Orders and provisions of the Caltrans Construction Manual.
- c. CONSULTANT shall provide appropriate safety training for all CONSULTANT field personnel.
- d. CONSULTANT shall provide all necessary safety equipment as required for CONSULTANT personnel.

10. Project Close Out

- a. CONSULTANT shall prepare a list of items to be completed and/or corrected by the Contractor for final completion of the Project.
- b. CONSULTANT shall collect and furnish as-built information to the design engineer for preparation of as-built drawings including pre-stress drawings and pile logs, as applicable.
- c. CONSULTANT shall review and verify completeness of as-built drawings.
- d. CONSULTANT shall conduct a final walk-through with SANBAG, Contractor, and design engineers.

- e. CONSULTANT shall prepare final construction reports including the Project Completion Report.
- f. CONSULTANT shall prepare and deliver to SANBAG all project files.
- g. CONSULTANT shall assist SANBAG and Contractor in obtaining final release of all project permits.

D. DELIVERABLES

- 1. Inspector daily reports, extra work diaries, and Resident Engineers' daily diaries.
- 2. Monthly Project Activity Summary Reports.
- 3. Monthly Contractor progress payments, back-up documentation, and Contractor payment records.
- 4. Contractor final payment documents, delivered to SANBAG no later than ten (10) working days after acceptance by SANBAG of the completed construction projects.
- 5. Project Completion Report.
- 6. All project files, project reports, correspondence, memoranda, shop drawings, project logs, change order data, claims and claim reports, and Contractor payment records.
- 7. Certified payrolls and fringe benefit statements for all employees, CONSULTANT and Contractor, who are subject to the State and/or Federal prevailing wage rates.
- 8. All material test results will be provided in accordance with the applicable Standard Specifications and Special Provisions, and test methods. Failing tests will be immediately reported to the Resident Engineer or Structures Representative. All test results will be recorded on the appropriate forms. The test documents will be legible and show the identity of the tester where appropriate. A notebook containing all results will be kept.
- 9. Unless otherwise specified in the survey request, the deliverables shall conform to the following:
 - a. Survey points, lines, and monuments shall be established, marked, identified, and referenced as required by survey request and requirements herein.
 - b. Survey notes, drawings, calculations, and other survey documents and information shall be completed as required by the survey request and the requirements herein.
 - c. All original survey documents resulting from this contract, including original field notes, adjustment calculations, final results, and appropriate intermediate documents, shall be delivered to the Resident Engineer and shall become the property of SANBAG. A copy of all survey documents furnished by SANBAG shall be retained by CONSULTANT for future reference.

When the survey is performed with a total station survey system, the original field notes shall be a hard copy in a readable format of the data (observations) as originally collected and submitted by the survey party. The hard copy shall be signed by the Party Chief. If the Party Chief is not licensed, the person in “responsible charge” will be required to sign.

- d. Deliverables to the Resident Engineer shall follow the format specified below:
- Horizontal Control
 - Alpha numeric hard copy point listing with adjusted California Coordinate System northing and easting and the appropriate descriptions.
 - Vertical Control
 - Alpha numeric hard copy benchmark listing with adjusted elevations compatible with the design datum.
 - Topography
 - Alpha numeric hard copy listing, hard copy drawing, and computer aided drawing and design (CADD) digital drawing. The CADD drawing shall be compatible with the systems utilized by Caltrans.

Data collection method used to collect cross-section data and the coding (feature description) of terrain data for cross-sections shall conform to the survey request requirements. Deliverables shall depend on the data collection method as follows:

1. Conventional Cross – Sections (each cross – section):
For each cross - section and alpha numeric listing, a hard copy drawing, and a computer formatted file compatible with the systems utilized by Caltrans.
2. Terrain Line Interpolation Cross – Section Data (each terrain line interpolation survey):
Terrain line interpolation cross – sections shall include an alpha numeric listing, a hard copy plan view drawing of the terrain lines, and a computer input file. The computer input file shall be provided in a format compatible with the systems utilized by Caltrans.

- e. Data Collector Data
If specified in the survey request, the raw data from the data collector shall be provided in a format conforming to the survey request requirements

- f. Other

As specified in the survey request.

E. EQUIPMENT AND MATERIALS TO BE PROVIDED BY CONSULTANT

1. CONSULTANT shall provide all necessary equipment including software, materials, supplies, miscellaneous tools, and safety equipment required for its personnel to perform the services accurately, efficiently, and safely. Only those items listed in Attachment B, CONSULTANT Cost Proposal, shall be reimbursed by SANBAG.

2. CONSULTANT personnel shall be provided with vehicles suitable for the location and nature of the work involved. Vehicles shall be equipped with flashing yellow lights, either permanently or temporarily affixed.
3. CONSULTANT personnel shall be provided with a mobile radio, cellular phone, or other means to assure full-time communication. If a radio system is to be used, CONSULTANT shall provide a base station at the field office.
4. CONSULTANT personnel shall be provided with all applicable standard plans, specifications, and other standards as appropriate (see item G below).
5. For Materials Testing, CONSULTANT and its staff will be fully equipped at all times to perform the services required, including but not limited to the following:
 - a. An on-site mobile laboratory or laboratory in close proximity to the project will be required. The type and location of the lab should be such that it can meet the needs of the project in an efficient, time effective manner. The laboratory is to be fully staffed, equipped, and supplied to conduct all required soils, materials, and concrete breaking tests in a timely manner.
 - b. CONSULTANT's personnel will be provided with radios, mobile phones, or other means to assure full-time communication. CONSULTANT vehicles will have flashing lights, visible from the rear, with a driver control switch. Vans without side windows will not be used. SANBAG furnished magnetic logos will be affixed to each side of the vehicle at all times the vehicle is being used for the work under this contract.
 - c. Each vehicle is to be fully contained with all necessary equipment and supplies necessary to perform the field sampling and tests required.
 - d. Field personnel will be provided with all necessary safety equipment to permit work to be performed safely and efficiently within operating highway and construction zone environments.
 - e. All equipment to be calibrated as per Section 3-10 and 3-11 of Caltrans' Quality Assurance Program Manual.
6. For construction surveying, CONSULTANT and staff shall have adequate equipment and supplies to complete the required survey work. Equipment and supplies shall, include, but not be limited to:
 - a. Survey vehicles:

Survey vehicles will be suitable to perform the required work in varying terrain and conditions encountered on the project. Vehicles shall be fully equipped with all necessary tools, instruments, supplies, and safety equipment required to perform the work accurately, efficiently, and safely. Vehicles shall be equipped with a flashing yellow beacon light.

b. Data Processing Systems:

Data processing systems shall include hardware and software to:

- Performing survey and staking calculations from the design plans and specifications;
- Reduce survey data collected with conventional and total station survey systems;
- Perform network adjustments for horizontal and vertical control surveys;
- Format survey data to be compatible with the Caltrans computer survey and data system.

c. Drafting equipment and supplies.

d. Digital calculators.

e. Hand tools as appropriate for the requested survey work.

f. Traffic cones (minimum 25). Traffic cones shall be 28 inches in height (minimum).

g. Traffic control devices as required to perform the requested survey work. Traffic control devices include signs, sign bases, flags, and hand held signs.

h. Leveling instruments and equipment:

- Self-leveling level. Precision: standard deviation in one mile of double run leveling 0.005 feet or less.
- Suitable level rods for the work to be performed.

i. Distance measuring instruments and equipment:

- Electronic distance measurer (EDM). Precision: standard deviation 3 mm plus 3 PPM, or less; Range: Minimum one mile under average atmospheric conditions.
- Prisms, sufficient to perform the required work.
- Tapes; steel, cloth.

j. Angle measuring instruments and equipment:

- Theodolite for non-control surveys; Precision: direct circle reading to three seconds, or equivalent, horizontal and vertical.
- Targets as required to perform the work.

k. When required for efficient survey operations, total station survey systems consisting of an electronic angle measuring instrument, EDM, and electronic data collector shall be provided. The angle measuring instruments and EDM shall conform to the requirements for the equipment previously listed.

l. Radio or cellular communications equipment for communication between field office and field crews.

m. Caltrans manuals, standards, forms, and other policies and procedures to be followed to perform the required work.

F. MATERIALS TO BE FURNISHED BY SANBAG

1. SANBAG will provide copies of all Project construction documents including plans, special provisions, reports, designer prepared resident engineer files, and contracts.
2. SANBAG will provide copies of all previously secured permits and Project authorizations.
3. SANBAG will provide office space, telephones, desks, chairs, computers, and appropriate office equipment.
4. Appropriate forms for recording test data in accordance with Caltrans practices and procedures outlined in the "Manual of Test".
5. Magnetic SANBAG logos to be affixed to CONSULTANT vehicles.

G. STANDARDS

All construction inspection, surveys, materials sampling and testing, and contract administration shall be in accordance with the Project bid documents, special provisions, plans, and current Caltrans Manuals including:

1. Construction Manual and its revisions
2. Bridge Construction Records and Procedures Manual
3. Quality Assurance Program Manual
4. Manual of Traffic Controls for Construction and Maintenance Work Zones
5. Caltrans Standard Specifications and Standard Plans
6. Caltrans Storm Water Pollution Prevention Plan (SWPPP) and Water Pollution Control Program (WPCP) Preparation Manual
7. Manual of Test (3 volumes)
8. Survey Manual
9. District 8 Standard Staking Procedures Manual

Work not covered by the manuals shall be performed in accordance with accepted professional standards.

Surveys performed by CONSULTANT shall conform to the requirements of the Land Surveyor's Act. In accordance with the Land Surveyor's Act, "responsible charge" for the work shall reside with the Licensed Land Surveyor or a pre-January 1, 1982, Registered Professional Civil Engineer in the State of California.

Unless otherwise specified in the survey request, control surveys shall conform to second order (modified) accuracy standards as specified in the Caltrans "Survey Manual".

Additional standards for specific survey work may be included in the applicable request for survey. Such standards supplement the standards specified herein. If additional standards conflict with the standards specified herein, the "Survey Request's" standard shall govern.

The Resident Engineer and SANBAG will decide all questions which may arise as to the quality or acceptability of deliverables furnished and work performed for this contract. Any CONSULTANT employee who does not perform adequately will be replaced if directed by the SANBAG Construction Manager.

H. AVAILABILITY AND WORK HOURS

The typical workday includes all hours worked by SANBAG's construction Contractor. The construction Contractor's operations may be restricted to specific hours during the week, which will become the normal workday for CONSULTANT's personnel. On days when work is not performed by the construction contractor, such as rainy or unsuitable weather days, CONSULTANT services will not be provided unless authorized by the SANBAG Construction Manager.

Unless otherwise directed by SANBAG, the normal work week will consist of 40 hours. From time to time, overtime may be required. However, overtime will be worked only when approved in writing by SANBAG.

I. LIMITATIONS TO AUTHORITY

CONSULTANT does not have the authority to:

1. Authorize deviations from the contract documents.
2. Approve substitute materials or equipment; except as authorized in writing by SANBAG.
3. Conduct or participate in tests or third party inspections; except as authorized in writing by SANBAG.
4. Assume any of the responsibilities of the Contractors, Contractors' Superintendent, or subcontractors.
5. Exercise control over or be responsible for construction means, methods, techniques, sequences, procedures, or safety precautions.
6. Communicate directly with subcontractors or material suppliers without the prior consent of the Contractor.
7. Verbally authorize or approve change orders or extra work for the Project.
8. Offer or receive incentives, inducements, or other forms of enumeration to or from the Contractor to perform services or work outside the terms of any executed contracts for this Project.

J. THIRD PARTY RELATIONSHIPS

This Contract is intended to provide unique services for a specific project. In the development of the Project, SANBAG has worked closely with various professional consultants, agencies, and others in the preparation of the construction documents and other Project related materials. SANBAG, however, is solely responsible for and will be the sole point of contact for all contractual matters related to the Project. CONSULTANT shall take direction **only** from SANBAG and shall regularly inform **only** SANBAG of Project progress, outstanding issues, and all Project related matters.

During the course of the Project, CONSULTANT may find occasion to meet with FHWA, Caltrans and City representatives, the design engineer, Project consultants, or other third parties who have assisted with the Project. These entities may, from time to time, offer suggestions and/or recommendations regarding the Project or elements of the Project. While SANBAG enjoys a close relationship with and has considerable confidence in the capabilities of these other parties, CONSULTANT shall not act on any suggestions, solicited or unsolicited, without obtaining specific direction from SANBAG. All oral and written communication with outside agencies or consultants related to the project shall be directed only to SANBAG. Distribution of Project related communication and information shall be at the sole discretion of SANBAG representatives.

K. CONSTRUCTION SITE SAFETY

In addition to the requirements specified elsewhere in this contract, the following also will apply.

1. CONSULTANT will conform to the safety provisions of the Caltrans Construction Manual.
2. CONSULTANT's field personnel will wear white hard hats with proper suspension, orange vests with reflective tape, sleeved shirt, long pants, and leather boots with ankle support and rubber soled shoes at all times while working in the field.
3. CONSULTANT will provide appropriate safety training for all CONSULTANT's personnel, including work on and near highways and railroads.
4. All safety equipment will be provided by CONSULTANT.

L. BASIS FOR SURVEY AND MONUMENT STAKING

SANBAG will designate the existing horizontal and vertical control monuments that are the basis of CONSULTANT performed surveys. SANBAG will provide the California Coordinate System values and/or elevation values for these monuments. CONSULTANT shall adjust CONSULTANT performed surveys to be the designated control monuments and the values.

Monuments established by CONSULTANT shall be marked by CONSULTANT with furnished disks, plugs, tags. In addition, CONSULTANT shall identify CONSULTANT established monuments by tagging or stamping the monuments with the license or registration number of CONSULTANT'S surveyor who is in "responsible charge" of the work.

M. PERSONNEL QUALIFICATIONS AND RESPONSIBILITIES

The quantity and qualifications of field personnel to be assigned will be determined by the scope

of the Project and the degree of difficulty of required tasks to be performed. All personnel and personnel assignments shall be subject to approval by SANBAG. While some areas of responsibility may overlap, as a guideline, CONSULTANT personnel assigned to the project shall have the following minimum qualifications:

1. Project Manager

Minimum qualifications shall be as follows:

- a. Six (6) years project management experience on similar construction projects.
- b. Accessible to SANBAG at all times during normal working hours.
- c. A thorough understanding of Caltrans construction practices and procedures.

The Project Manager will assume the following functional responsibilities:

- a. Review, monitor, train, and provide general direction for CONSULTANT personnel.
- b. Assign personnel to projects on an as-needed basis.
- c. Administer personal leave.
- d. Prepare monthly reports for delivery to SANBAG.

2. Resident Engineer

Minimum qualifications shall be as follows:

- a. Eight (8) years resident engineer experience on similar construction projects.
- b. Licensed Professional Civil Engineer in the State of California.
- c. Ability to work independently, make effective decisions concerning construction work in progress, and solve field problems.
- d. Accessible to SANBAG at all times including weekends and holidays.
- e. Thorough understanding of Caltrans field methods, practices, and construction office procedures.

The Resident Engineer will assume the following functional responsibilities:

- a. Monitor and provide daily direction to CONSULTANT Resident Engineers and inspection personnel.
- b. Assign field personnel to specific project tasks.
- c. Monitor and track Contractor progress.

- d. Prepare daily, weekly and monthly reports as required.
- e. Coordinate utility relocations with appropriate agencies and the utility inspector.
- f. Act as prime field contact between various project Contractors and SANBAG's Construction Manager.

3. Landscape Architect

Minimum qualifications shall be as follows:

- a. Eight (8) years landscape architecture experience on similar highway landscaping projects of which a significant portion shall be during the field construction.
- b. Licensed Landscape Architect in the State of California.
- c. Ability to use typical calculations for hydraulics analysis, piping mechanics, and strengths of materials as it relates to irrigation systems.
- d. Ability to use typical computer programs for word processing and spreadsheets.
- e. Accessible to SANBAG at all times including weekends and holidays.
- f. Knowledge of all local regulatory requirements pertaining to the Storm Water Pollution Prevention Plan (SWPPP) and the National Pollutant Discharge Elimination System (NPDES) as they relate to Highway landscaping projects.
- g. A thorough understanding of Caltrans Erosion Control & Highway Planting standards.
- h. Thorough understanding of Caltrans field methods, practices, and construction office procedures as they pertain to responsibilities of a Resident Engineer.

The Landscape Architect will assume the following functional responsibilities:

- a. Monitor and provide daily direction to CONSULTANT inspection personnel.
- b. Assign field personnel to specific project tasks.
- c. Monitor and track Contractor progress.
- d. Prepare daily, weekly and monthly reports as required.
- e. Coordinate efforts of SANBAG construction support consultants.
- f. Coordinate utility service requirements with appropriate agencies.

4. Assistant Resident Engineer

Minimum qualifications shall be as follows:

- a. Four (4) years experience on similar construction projects.
- b. Licensed Professional Civil Engineer in the State of California.
- c. Ability to work independently, make effective decisions concerning construction work in progress, and solve field problems.
- d. Accessible to SANBAG at all times including weekends and holidays.
- e. Thorough understanding of Caltrans field methods, practices, and construction office procedures.

The Assistant Resident Engineer shall act under the direction of the Resident Engineer and will assume the following functional responsibilities:

- a. Monitor and provide daily direction to CONSULTANT inspection personnel.
- b. Assign field personnel to specific project tasks.
- c. Monitor and track Contractor progress.
- d. Prepare daily, weekly and monthly reports as required.
- e. Coordinate utility relocations with appropriate agencies.

5. Lead Field Inspector

Minimum qualifications shall be as follows:

- a. Six years (6) construction inspection experience in public works or similar projects or a four-year degree in the field of civil engineering, transportation and four years of similar construction experience.
- b. Knowledge of Caltrans construction practices, physical characteristics and properties of highway construction materials, and approved methods and equipment used in making physical tests of construction materials.
- c. Ability to work independently, make effective decisions concerning construction work in progress, and solve field problems.
- d. Ability to direct the efforts of subordinate inspectors.
- e. Understanding of Caltrans field and construction office procedures.
- f. Ability to use an automatic level and transit for the purpose of verifying line and grade.

The Lead Field Inspector will assume the following functional responsibilities:

- a. Assist in inspections to assure compliance with contract plans, specifications, and special provisions on all phases of construction.
- b. Assist in the preparation of contract change orders, contract estimates, progress pay estimates, and other documents or reports required for the Project.
- c. Coordinate field testing of materials to monitor compliance with Project specifications and Caltrans Quality Assurance Program.
- d. Maintain accurate and timely project records. Perform quantity calculations for progress pay estimates.
- e. Perform analytical calculations such as basic earthwork, grading, profiles, and special staking procedures.
- f. Provide input for the redesign of facilities to fit existing field conditions.
- g. Monitor and track Contractor progress. Prepare daily, weekly, and monthly reports as required.

6. Field Inspector

Minimum qualifications shall be as follows:

- a. Two years construction inspection experience in public works or similar projects or a four-year degree in the field of civil transportation engineering.
- b. Knowledge of construction practices, physical characteristics and properties of construction materials, and approved methods and equipment used in making physical tests of construction materials.
- c. Ability to work independently. Ability to make minor decisions concerning construction work in progress and to solve field and office problems.
- d. Understanding of Caltrans construction methods and practices.
- e. Ability to use an automatic level and transit for the purpose of verifying line and grade.

The Field Inspector will assume the following functional responsibilities:

- a. Assist in inspections to assure compliance with contract plans, specifications, and special provisions on all phases of project construction.
- b. Assist in preparation of contract change orders, contract estimates, progress pay estimates, and other documents or reports required for the Project.
- c. Coordinate field testing of materials to monitor compliance with Project specifications and Caltrans Quality Assurance Program.

- d. Perform quantity calculations for progress pay estimates and maintain Project records.
- e. Perform analytical calculations such as basic earthwork, grading, profiles, and special staking procedures.
- f. Provide input for the redesign of facilities to fit existing field conditions.
- g. Perform labor compliance interviews of the Contractors' personnel.

7. Structural Representative or Lead Structural Inspector

Minimum qualifications shall be as follows:

- a. Six (6) years of bridge or structural construction inspection as related to major public works projects and a four-year degree in civil engineering.
- b. Licensed Professional Civil Engineer in the State of California.
- c. Knowledge of stress analysis, structural mechanics, and strength of materials.
- d. Knowledge of Caltrans construction practices and the physical characteristics and properties of various bridge construction materials including concrete.
- e. Experience in the following areas: foundations, pile driving, concrete prestressing, bridge deck construction, cast-in-place and MSE walls construction, falsework, and shoring.
- f. Ability to work independently. Ability to perform duties in the construction field office and effectively make decisions concerning construction work in progress and solving field problems.
- g. Ability to direct the efforts of subordinate inspectors.
- h. Ability to use an automatic level and transit for the purpose of verifying line and grade.
- i. Thorough understanding of Caltrans field methods, practices, and construction office procedures.

The Structural Representative shall assume the following functional responsibilities:

- a. Assist in inspections to assure compliance with contract plans, specifications, and special provisions on all phases of structural construction such as bridges, foundations, walls, falsework, shoring, and drainage structures.
- b. Make grade, alignment, quantity, falsework, and shoring calculations.
- c. Assist in the preparation of contract change orders, contract estimates, progress pay estimates, and other documents or reports required for the Project.

- d. Coordinate the sampling and testing of construction materials to monitor compliance with contract specifications.
- e. Monitor and track Contractor progress. Prepare daily, weekly, and monthly reports as required.
- f. Coordinate with Resident Engineer, as well as the Construction Staking and Material Testing consultants.
- g. Direct subordinate inspectors.

8. Structural Inspector

Minimum qualifications shall be as follows:

- a. A minimum of two (2) years of bridge design or structural construction inspection as related to Caltrans or major public works projects or a four-year degree in civil or structural engineering.
- b. Knowledge of stress analysis, structural mechanics, and strength of materials.
- c. Knowledge of construction practices and the physical characteristics and properties of various highway bridge construction materials including concrete.
- d. Experience in one or more of the following areas: pile driving, concrete prestressing, bridge deck construction, retaining wall construction, falsework, and shoring.
- e. Ability to work independently and make minor decisions concerning construction work in progress and to solve field and office problems.
- f. Ability to use an automatic level and transit for the purpose of verifying line and grade.

The Structural Inspector will assume the following functional responsibilities:

- a. Assist in inspections to assure compliance with contract plans, specifications, and special provisions on all phases of structural construction such as bridges, foundation, walls, falsework, shoring, and drainage structures.
- b. Make grade, alignment, quantity, falsework, and shoring calculations.
- c. Assist in the preparation of contract change orders, contract estimates, progress pay estimates, and other documents or reports required for the Project.
- d. Sampling and testing of construction materials to monitor compliance with contract specifications and Caltrans Quality Assurance Program.

9. Office Engineer

Minimum Qualifications shall be as follows:

- a. Two years (2) office engineering on similar construction projects.
- b. Knowledge of Caltrans Office of Highway Construction forms used to administer construction projects.
- c. Knowledge of Caltrans system of document organization.
- d. Knowledge of construction records and accounting procedures.
- e. Knowledge of documentation, procedures, and reporting for federally funded projects.
- f. Knowledge of laws and regulations governing the payment of prevailing wages.

The Office Engineer will assume the following functional responsibilities:

- a. Process monthly progress pay estimates, monthly status reports, extra work reports, and weekly statements of working days.
- b. Prepare and process contract change orders.
- c. Monitor construction budget and schedule.
- d. Prepare, maintain, and/or file project documents including labor and equipment records, correspondence, memoranda, meeting minutes, claims, personnel records, labor compliance reports, and daily, weekly, and monthly reports.
- e. Perform routine calculations and checking of quantities.
- f. Coordinate all office activities and functions with SANBAG representatives.

10. Materials Testing Project Manager

- a. Four years project management experience on a similar highway/bridge construction project.
- b. Licensed civil engineer in the State of California.
- c. Ability to use typical computer programs including word processing and spreadsheets.

The materials testing project manager will assume the following functional responsibilities:

- a. Review, monitor, train, and provide general direction for CONSULTANT's laboratory and field personnel.

- b. Assign personnel to projects on an as-needed basis in coordination with the Resident Engineer.
- c. Administer personal leave, subject to approval of the Resident Engineer.
- d. Prepare monthly reports for delivery to the Resident Engineer.
- e. Provide direction, administration, and responsibility for Materials Certification per Caltrans Construction Manual, Section 8-01.

Material testing personnel will be certified by a California Registered Civil Engineer as being experienced and competent in the test procedures required for the work involved (and possess a current certificate of proficiency (Form MR-0111) in accordance with Quality Assurance Program Manual (Section 3-5). Independent certification of Caltrans test procedures may be performed at the discretion of the SANBAG Construction Manager.

11. Materials Technicians

CONSULTANT personnel provided under this contract will have a variety of skills and experience appropriate for the level of tasks to be assigned. Field personnel will have a minimum of two years experience in conducting material sampling and testing of the type required for the projects involved and will possess the following additional capabilities:

- a. Have the ability to establish specific locations for appropriate tests when construction contract administration personnel are not available.
- b. Be familiar with construction practices and be fully aware of construction activities at the project site.
- c. Have knowledge of and comply with safety and health regulations and requirements applicable to the project.

Specific qualifications for technicians are as follows:

CONSTRUCTION TECHNICIAN I

Performs a variety of semi-skilled activities.

Examples of duties assigned to this classification are:

- Conducting quality control tests such as soil densities, sieve analysis tests, operation scales and inspecting spread operations.
- Sampling and transporting produced construction materials from point of application or production to testing laboratory.

Knowledge and Skills Required

- Knowledge of tools, equipment and vehicles utilized in construction.

- Knowledge of standard equipment and materials used for the sampling and testing of construction material.
- Knowledge of basic mathematics used in the computation of a variety of construction items.
- Knowledge of record keeping, preparing of documents and reports.

TECHNICIAN II

Performs a variety of skilled activities

Examples of duties assigned to this classification are:

- Inspecting minor construction items, sampling and inspection of steel reinforcement, sampling and inspection of concrete placing operation.
- Collect and analyze soil samples of construction materials to determine compaction and moisture content.
- Inspection and sampling of all phases of asphalt concrete and PCC paving operation, including plant inspection.
- Confers with construction engineers and contractors regarding construction in progress and is conformance to specifications and construction plans.
- Answers questions and resolves problems.
- Inspects construction in progress to ensure conformance with specification, agreements, and established requirements.
- Keeps daily diary of work progress.
- Prepares reports on all field inspections and submits project quantities on a daily basis.
- Keeps accurate documentation for force accounts and possible claims.

Knowledge and Skill Required:

- All knowledge and skills required of lower classification.
- Knowledge of currently accepted methods, procedures and techniques used in highway construction inspection, survey, materials testing, and quality control equipment.
- Skill in interpersonal relations as applied to contact with contractors, representatives of other governmental jurisdictions, and other SANBAG/Caltrans staff.

TECHNICIAN III

Exercise considerable independent judgment within general Caltrans standards and guidelines.

Examples of duties assigned to this classification are:

- Inspect project construction on an ongoing basis to assure compliance with contract and in accordance with State and local standards.
- Perform a variety of structural material tests and inspections.
- Reviews construction plans and verified that these are in accordance with designated specifications and other requirements.
- Participates in the preparation of completed work estimates, to calculate

- compensation due contractor.
- Examines and verifies numeric data and material specifications on project cost source documents, utilizing geometry and trigonometry calculations.
- Supervises all work activities involved in construction projects, laboratory, and quality control work.
- Recommends approval of proposed project changes.

Knowledge and Skills Required:

- All knowledge and skills required of lower classifications.
- Knowledge of the principles and practices of Civil Engineering as applied to the construction of state highways.
- Skill in analyzing and evaluating a wide variety of highly technical engineering data, including construction plans, field survey and quality control documents.
- Skill in interpreting and implementing Caltrans standards, policies, procedures and regulations.
- Skill in interpersonal relations, as applied to contacts with contractors, representatives of other governmental jurisdictions, and other SANBAG/Caltrans staff.

12. Construction Surveying Project Manager

Minimum qualifications for the position of Project Manager shall be as follows:

- Four (4) years project management experience on similar construction projects.
- Licensed Surveyor or pre-January 1, 1982, Registered Professional Engineer in the State of California.
- Accessible to the Resident Engineer and SANBAG at all times during normal working hours as specified in this Scope of Services.

Under the direction of the Resident Engineer, the project manager will be responsible for:

- Review, monitor, train, and provide general direction for CONSULTANT survey personnel.
- Assign personnel to projects on an as-needed basis.
- Administer personal leave, subject to approval of the Resident Engineer.
- Prepare monthly reports for delivery to the Resident Engineer.

13. Field Party Chiefs

- Minimum qualifications for the position of Party Chief shall meet at least one of the following licensing requirements:
 1. A licensed Land Surveyor in the State of California.
 2. A pre-January 1, 1982, Registered Professional Civil Engineer in the State of California.
 3. An experienced surveyor who serves as chief under the direction or supervision of a person who is a licensed Land Surveyor or pre-January 1, 1982, Registered

Professional Civil Engineer in the State of California. The direction or supervision shall place the supervisor in “responsible charge” of the work. “Responsible Charge” is defined in Chapter 15 of the Business and Professions Code (the Land Surveyor’s Act) and Title 16, Chapter 5, of the California Administrative Code (regulations adopted by the Board of Registration for Professional Engineers and Land Surveyors).

- Two (2) years survey experience on similar construction projects.
- Thorough knowledge of construction survey practices and the ability to read and interpret plans and specifications.
- Ability to make effective decisions concerning field problems and work in progress.
- Familiarity with typical coordinate geometry computer programs.
- Familiarity with safety requirements for surveying near traffic.

The Party Chiefs will assume the following responsibilities:

- Perform construction staking services for project construction.
- Administer day to day activities for the survey party.
- Perform analytical survey calculations for items such as grading, horizontal and vertical control, right of way, and minor in-field design.
- Maintain continuous communication with the Resident Engineer, field personnel, and construction administration staff.

14. Survey Crews

Minimum qualifications for survey crew members shall be as follows:

- One (1) year survey experience on similar construction projects.
- Fundamental knowledge of construction survey practices and the ability to read and interpret plans and specifications.
- Ability to assist Party Chiefs and office personnel in all required surveying work.
- One survey crew member must have the ability to assume temporary leadership of the survey party in the absence of the Party Chief.

Under the direction of the Resident Engineer and the Party Chief, the survey crew members will assume the following responsibilities:

- Perform basic calculations to support construction staking.
- Maintain continuous communication with Party Chiefs and office personnel.

SANBAG Contract No. C08183
by and between
San Bernardino County Transportation Authority
and
TBD
for

Construction Management of SR-210/I-215 Direct Connectors Project

FOR ACCOUNTING PURPOSES ONLY				
<input checked="" type="checkbox"/> Payable <input type="checkbox"/> Receivable	Vendor Contract # _____ Vendor ID _____	Retention: <input type="checkbox"/> Yes _____ % <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Original <input type="checkbox"/> Amendment	
Notes:				
Original Contract: \$ <u>TBD</u> Contingency Amount: \$ _____		Previous Amendments Total: \$ _____ Previous Amendments Contingency Total: \$ _____ Current Amendment: \$ _____ Current Amendment Contingency: \$ _____		
Contingency Amount requires specific authorization by Task Manager prior to release.				
<i>Contract TOTAL →</i>				\$ _____
↓ Please include funding allocation for the original contract or the amendment.				
Task	Cost Code	Funding Sources	Grant ID	Amounts
_____	_____	_____	_____	\$ _____
_____	_____	_____	_____	\$ _____
_____	_____	_____	_____	\$ _____
_____	_____	_____	_____	\$ _____
Original Board Approved Contract Date: _____ Contract Start: _____ Contract End: _____ New Amend. Approval (Board) Date: _____ Amend. Start: _____ Amend. End: _____				
If this is a multi-year contract/amendment, please allocate budget authority among approved budget authority and future fiscal year(s)-unbudgeted obligations:				
Approved Budget Authority →	Fiscal Year: _____ \$ _____	Future Fiscal Year(s) – Unbudgeted Obligation →		\$ _____
Is this consistent with the adopted budget? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, which Task includes budget authority? <u>824 and 838</u> If no, has the budget amendment been submitted? <input type="checkbox"/> Yes <input type="checkbox"/> No				
CONTRACT MANAGEMENT				
Please mark an "X" next to all that apply:				
<input type="checkbox"/> Intergovernmental <input checked="" type="checkbox"/> Private <input type="checkbox"/> Non-Local <input type="checkbox"/> Local <input type="checkbox"/> Partly Local				
Disadvantaged Business Enterprise: <input type="checkbox"/> No <input type="checkbox"/> Yes _____ %				
Task Manager: Garry Cohoe			Contract Manager: Abunnasr Husain	

Task Manager Signature _____ Date _____

Contract Manager Signature _____ Date _____

Chief Financial Officer Signature _____ Date _____

CONTRACT NO: C08183

EFFECTIVE DATE: TBD

by and between

**San Bernardino
County Transportation Authority**

and

TBD

Draft

for

**Construction Management, Materials Testing, and Construction
Surveying Services**

State Route 210/Interstate-10 Direct Connectors

In

The City of San Bernardino

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CONTRACT
FOR
CONSULTING SERVICES

This Contract, entered into this [DATE] day of [MONTH] 200__, by the firm of [CONSULTANT] (hereinafter called CONSULTANT) whose address is:

[CONSULTANT ADDRESS]

and San Bernardino County Transportation Authority (hereinafter called AUTHORITY) whose address is:

**1170 W. 3rd Street, 2nd Floor
San Bernardino, CA 92410-1715**

Whereas, AUTHORITY desires CONSULTANT to perform certain technical Services as hereinafter described and CONSULTANT desires to do so for the compensation and in accordance with the terms and conditions set forth herein.

NOW, THEREFORE, the parties hereto agree as follows:

Article 1 Description of Services

CONSULTANT agrees to perform Services set forth in Attachment "A", Scope of Services, which is incorporated herein by reference, in accordance with high professional engineering and environmental services which are generally accepted in the State of California, in accordance with the terms and conditions expressed herein and in the sequence, time, and manner defined therein. The word "Services," as used herein, includes without limitation, the performance, fulfillment and discharge by CONSULTANT of all obligations, duties, tasks, and services imposed upon or assumed by CONSULTANT hereunder; and the Services performed hereunder shall be completed to the satisfaction of AUTHORITY, with their satisfaction being based on prevailing professional engineering and environmental services standards.

Article 2 Performance Schedule and Force Majeure

2.1 The Period of Performance by CONSULTANT under this Contract shall commence on [CONTRACT DATE] and shall continue in effect for [] months, until work is completed, or otherwise terminated, cancelled or extended as hereinafter provided.

Article 3 Contract Price and Cost Principles

- 3.1 Full compensation to CONSULTANT for full and complete performance of all Services, compliance with all the terms and conditions of this Contract, payment by CONSULTANT of all obligations incurred in, or application to, CONSULTANT's performance of Services, and for which CONSULTANT shall furnish all personnel, facilities, equipment, materials, supplies, and Services (except as may be explicitly set forth in this Contract as furnished by AUTHORITY), shall not exceed the amounts set forth in 3.2 below.
- 3.2 The total cost for Services to the project shall not exceed [CONTRACT AMOUNT]. This amount does not include a contingency. Services to be provided under terms of this Contract are to be provided on an as needed basis and compensated for as set forth in Attachment "B" which is incorporated herein by reference. Utilization of the contingency is not permitted unless directed in writing by AUTHORITY Project Manager. CONSULTANT's fee for services is included in the total estimated contract cost and shall be a fixed percentage fee, as agreed upon, and noted in Attachment "B".
- 3.3 CONSULTANT's overhead rates will be fixed, as set forth in Attachment "B" for the duration of this Contract. The fixed overhead rate will not be subject to adjustment. Any percentage increase over the direct labor rate in Attachment "B" is not permitted without prior authorization from AUTHORITY.
- 3.4 Not used.
- 3.5 The cost principles set forth in Part 31, Contract Cost Principles and Procedures, in Title 48, Federal Acquisition Regulations System of the Code of Federal Regulations (CFR) as constituted on the effective date of this Contract shall be utilized to determine allowableness of costs under this Contract and may be modified from time to time by amendment of the Contract.
 - 3.5.1 The CONSULTANT agrees to comply with Federal Department of Transportation procedures in accordance with 49 CFR, Part 18, Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments.
 - 3.5.2 Any costs for which payment has been made to CONSULTANT that are determined by subsequent audit to be unallowable under 48 CFR, Part 31, Contract Cost Principles and Procedures, or 49 CFR, Part 18, Uniform Administrative Requirements for Grants

and Cooperative Agreements to State and Local Governments shall be repaid by CONSULTANT to AUTHORITY.

3.5.3 Any subcontract, entered into as a result of this Contract shall contain all of the provisions of this Section 3.5.

3.6 Any Services provided by the CONSULTANT not specifically covered by the Scope of Services (Attachment "A") shall not be compensated without prior written authorization from AUTHORITY. It shall be CONSULTANT's responsibility to recognize and notify AUTHORITY when services not covered by the Scope of Services have been requested or are required. All changes and/or modifications to the Scope of Services shall be made in accordance with Article 12, Changes.

Article 4 Availability of Funds

This Contract is awarded on the contingency of availability of funds. The obligation of AUTHORITY is conditioned upon the availability of funds that are allocated and available for the payment of such an obligation. If funds are not allocated and available for the continuance of Services performed by CONSULTANT, Services directly or indirectly involved may be suspended or terminated by AUTHORITY at the end of the period for which funds are available. When AUTHORITY becomes aware that any portion of Services that will or may be affected by a shortage of funds, it will immediately so notify CONSULTANT. Nothing herein shall relieve AUTHORITY from its obligation to compensate CONSULTANT for Services actually performed pursuant to this Contract prior to such notification. No penalty shall accrue to AUTHORITY in the event this provision is exercised.

Article 5 Taxes, Duties, Fees

CONSULTANT shall pay when due, and the compensations set forth in Article 3, Contract Price and Cost Principles, shall be inclusive of all; a) local, municipal, state, and federal sales and use taxes, b) excise taxes, c) taxes on personal property owned by CONSULTANT, and d) all other governmental fees and taxes or charges of whatever nature applicable to CONSULTANT to enable it to conduct business.

Article 6 Invoicing and Payments

6.1 The compensation of CONSULTANT as provided herein shall be payable in 4 week billing period payments, forty-five (45) calendar days after receipt by AUTHORITY of an invoice prepared in accordance with instructions below. Payment shall not be construed to be an acceptance of Services.

- 6.2 CONSULTANT shall prepare all invoices in a form satisfactory to and approved by AUTHORITY and it shall be accompanied by documentation supporting each element of measurement and/or cost. Each invoice will be for a 4 week billing period and will be marked with AUTHORITY's project name, contract number, and task order number. CONSULTANT and AUTHORITY's Project Manager shall mutually agree on a cutoff date for invoices. The cutoff date for CONSULTANT's invoices shall be consistent from each period. Invoices shall be submitted within fifteen (15) calendar days after the cutoff date for the period covered by the invoice. Invoices shall include request for payment for Services (including additional Services authorized by AUTHORITY) completed by CONSULTANT during each billing period. Any invoice submitted which fails to comply with the terms of this Contract, including the requirements of form and documentation, may be returned to CONSULTANT. Any costs incurred by CONSULTANT in connection with the resubmission of a proper invoice shall be at CONSULTANT's sole expense.
- 6.3 CONSULTANT shall furnish evidence, satisfactory to AUTHORITY, that all labor and materials furnished and equipment used during the period covered by the invoice have been incurred. AUTHORITY shall not be obligated to make payments to CONSULTANT until CONSULTANT furnishes such evidence. Upon furnishing such evidence, satisfactory to AUTHORITY, AUTHORITY shall pay CONSULTANT the full amount of the invoice less disputed amounts.
- 6.4 CONSULTANT shall include a statement and release with each invoice, satisfactory to AUTHORITY, that CONSULTANT has fully performed the Services invoiced pursuant to this Contract for the period covered, and that all claims of CONSULTANT and its subcontractors for Services during the period will be satisfied upon the making of such payment. AUTHORITY shall not be obligated to make payments to CONSULTANT until CONSULTANT furnishes such statement and release.
- 6.5 CONSULTANT shall forfeit the fixed fee portion of the progress payment for any billing period that CONSULTANT fails to submit an invoice within sixty (60) calendar days after the cutoff date for the billing period.
- 6.6 CONSULTANT shall forfeit all costs incurred for a progress payment for any billing period that CONSULTANT fails to submit an invoice within one-hundred twenty (120) calendar days after the cutoff date for the billing period.

Article 7 Documentation and Right of Audit

CONSULTANT shall keep and maintain all books, papers, records, accounting

records including but not limited to all direct and indirect costs allocated to Services, files, accounts, reports, cost proposals with backup data, and all other material relating to Services. CONSULTANT shall upon request, make all such materials available to AUTHORITY or its designee at any reasonable time during the term of the Contract and for three (3) years from the date of final payment to CONSULTANT, for auditing, inspection and copying. CONSULTANT shall insert in each of its subcontracts the above requirement.

Article 8 Responsibility of the Engineer

- 8.1 The CONSULTANT shall be responsible for the professional quality, technical accuracy, and the coordination of all calculations, drawings, notes and other Services furnished by the CONSULTANT under terms of this Contract.
- 8.2 In addition to any other requirements of this Contract or duties and obligations imposed on CONSULTANT by law, the CONSULTANT shall, as an integral part of its Services, employ quality control procedures that identify potential risks and uncertainties related to construction of the project and the Services performed by CONSULTANT within the areas of CONSULTANT Services and expertise. Risks that may be encountered include, but are not limited to, soil conditions, constructability, factors of safety, impact on adjacent properties, public safety, and environmental considerations. At any time during performance of the contracted Scope of Services, should the CONSULTANT observe, encounter, or identify any unusual circumstances or uncertainties which could pose potential risk and uncertainties, CONSULTANT shall immediately document such matters and notify AUTHORITY of said circumstances and related concerns. CONSULTANT shall also similarly notify AUTHORITY in regard to the possibility of any natural catastrophe, potential failure, or any situation that exceeds design assumptions and could precipitate a failure. Notifications under this paragraph shall be specific, clear and timely, and in a form which will enable AUTHORITY to understand and evaluate the magnitude and effect of the risk and uncertainties involved.

Article 9 Reporting Requirements/Deliverables

All Reports and deliverables shall be submitted in accordance with Attachment "A", Scope of Services.

Article 10 Permits and Licenses

CONSULTANT shall (without additional compensation) keep current all governmental permits, certificates and licenses (including professional licenses) necessary for CONSULTANT to perform Services.

Article 11 Technical Direction

- 11.1 Performance of Services under this Contract shall be subject to the technical direction of the AUTHORITY Contract Manager, or his designee, as identified in Attachment "A", Scope of Services, attached to this Contract. The AUTHORITY Contract Manager will identify his designee, in writing to CONSULTANT, with the notice to proceed and subsequently with any changes during the Contract period. The term "Technical Direction" is defined to include, without limitation:
 - 11.1.1 Directions to the CONSULTANT which redirect the Contract effort, shift work emphasis between work areas or tasks, require pursuit of certain lines of inquiry, fill in details or otherwise serve to accomplish the contractual Scope of Services.
 - 11.1.2 Provision of written information to the CONSULTANT which assists in the interpretation of drawings, reports, or technical portions of Service description.
 - 11.1.3 Review and, where required by the Contract, approval of technical reports, drawings, specifications and technical information to be delivered by the CONSULTANT to AUTHORITY or Caltrans under the Contract.
- 11.2 Technical direction must be within the Scope of Services in the Contract. The AUTHORITY Contract Manager or designee does not have the authority to, and may not, issue any technical direction which:
 - 11.2.1 Constitutes an assignment of additional Services outside the Scope of Services;
 - 11.2.2 Constitutes a change as defined in the Contract clause entitled "Changes";
 - 11.2.3 In any manner causes an increase or decrease in the Contract's estimated cost or price or the time required for Contract performance;
 - 11.2.4 Changes any of the expressed terms, conditions or specifications of the Contract; or
 - 11.2.5 Interferes with the CONSULTANT's right to perform the terms and conditions of the Contract.

- 11.2.6 A failure of the CONSULTANT and AUTHORITY Contract Manager to agree that the technical direction is within the scope of the Contract, or a failure to agree upon the Contract action to be taken with respect thereto shall be subject to the provisions of Article 30, Disputes.
- 11.3 All technical directions shall be issued in writing by the AUTHORITY Contract Manager or his designee.
- 11.4 The CONSULTANT shall proceed promptly with the performance of technical directions duly issued by the AUTHORITY Contract Manager or his designee, in the manner prescribed by this article and within his authority under the provisions of this clause. If, in the opinion of the CONSULTANT, any instruction or direction by the AUTHORITY Contract Manager or his designee, falls within one of the categories defined in 11.2.1 through 11.2.5 above, the CONSULTANT shall not proceed but shall notify the Contract Manager in writing within five (5) working days after receipt of any such instruction or direction and shall request the Contract Manager to modify the Contract accordingly. Upon receiving the notification from the CONSULTANT, the Contract Manager shall:
- 11.4.1 Advise the CONSULTANT in writing within thirty (30) days after receipt of the CONSULTANT's letter that the technical direction is or is not within the scope of Article 12, Changes;
- 11.4.2 Advise the CONSULTANT within a reasonable time that AUTHORITY will or will not issue a written change order.

Article 12 Changes

- 12.1 The Services shall be subject to changes by additions, deletions, or revisions thereto by AUTHORITY. CONSULTANT will be advised of any such changes by written notification from AUTHORITY describing the change.
- 12.2 Promptly after such written notification of change is given to CONSULTANT by AUTHORITY, CONSULTANT and AUTHORITY will attempt to negotiate a mutually agreeable change in compensation or time of performance and amend the Contract accordingly. If CONSULTANT and AUTHORITY are unable to agree on the compensation change, the CONSULTANT may make a claim per Article 20, Claims. CONSULTANT shall have no obligation to perform the changes, and shall not be entitled to compensation for Services performed on such changes, prior to the execution of the change order relating to the changes required by AUTHORITY.

- 12.3 CONSULTANT shall not suspend performance of this Contract during the negotiation of any change order, except as may be directed by AUTHORITY. CONSULTANT shall perform all changes in accordance with all the terms of this Contract.

Article 13 Federal and State Mandatory Provisions

13.1 Equal Employment Opportunity/Nondiscrimination

- 13.1.1 In connection with the execution of this Contract, the CONSULTANT shall not discriminate directly or indirectly against any employee or applicant for employment because of race, color, religion, sex, age, or national origin. The CONSULTANT shall take action to insure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, age, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selections of training, including apprenticeship. The CONSULTANT agrees to post in conspicuous places available to employees and applicants for employment notices setting forth the provisions of the Equal Opportunity clause.
- 13.1.2 The CONSULTANT shall, in all solicitations or advertisements for employees placed by or on behalf of the CONSULTANT, state that all qualified applications shall receive consideration for employment without regard to race, color, religion, sex, age, or national origin.
- 13.1.3 The CONSULTANT shall send to each labor union or representative of workers with which it has a collective bargaining agreement or other Contract or understanding, a notice advising the labor union or workers representative of the CONSULTANT's commitments under this Equal Opportunity clause, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- 13.1.4 The CONSULTANT shall comply with all provisions of Executive Order No 11246 as amended by Executive Order 11375, and as supplemented in Department of Labor regulations (41 CFR, Part 60), and shall permit access to its books, records, and accounts by AUTHORITY and the

Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

- 13.1.5 In the event of the CONSULTANT's noncompliance with the Equal Opportunity clause of this Contract or any of the said rules, regulations, or orders, this Contract may be canceled, terminated, or suspended, in whole or in part, and the CONSULTANT may be declared ineligible for further government contracts in accordance with procedures authorized in Executive Order No. 11246 as amended by Executive Order 11375, and as supplemented in Department of Labor Regulations (41 CFR, Part 60).
- 13.1.6 The CONSULTANT shall include the provisions of paragraphs (13.1.1) through (13.1.6) of this Article in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order No. 11246 as amended by Executive Order 11375, and as supplemented in Department of Labor regulations (41 CFR, Part 60), so that such provisions will be binding upon each subcontract or vendor. The CONSULTANT shall take such action with respect to any subcontract or purchase order as AUTHORITY may direct as a means of enforcing such provisions, including sanctions for noncompliance. Provided, however, that in the event the CONSULTANT becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by AUTHORITY, the CONSULTANT may request AUTHORITY to enter into such litigation to protect the interests of AUTHORITY.

13.2 Handicapped Workers

- 13.2.1 The CONSULTANT will not discriminate against any employee or applicant for employment because of physical or mental handicap in regard to any position for which the employee or applicant for employment is qualified. The CONSULTANT agrees to take action to employ, advance in employment and otherwise treat qualified handicapped individuals without discrimination based upon their physical or mental handicap in all employment practices such as the following: employment, upgrading, demotion or transfer, recruitment, advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship.

Article 14 Conflict of Interest

- 14.1 The CONSULTANT agrees that it presently has no interest and shall not acquire any interest, direct or indirect, which would conflict in any manner or degree with the performance of Services required to be performed under this Contract. The CONSULTANT further agrees that in the performance of this Contract, no person having any such interest shall be employed.
- 14.2 No portion of the funds received by the CONSULTANT under this Contract shall be used for political activity or to further the election or defeat of any candidate for public office.

Article 15 Key Personnel

- 15.1 The personnel specified in 15.2 below are considered to be essential to Services being performed hereunder. Prior to diverting any of the specified individuals to other projects, or reallocation of tasks and hours of Services that are the responsibility of key personnel to other personnel, the CONSULTANT shall notify AUTHORITY reasonably in advance and shall submit justifications (including proposed substitutions) in sufficient detail to permit evaluation of the import on the project. Diversion or reallocation of key personnel shall be subject to written approval by AUTHORITY. AUTHORITY also reserves the right to approve proposed substitutions for key personnel.
- 15.2 Key Personnel are:

[ENTER KEY PERSONNEL HERE]

Article 16 Representations

CONSULTANT agrees with AUTHORITY that Services supplied by CONSULTANT in performance of this Contract shall be supplied by personnel who are careful, skilled, experienced and competent in their respective trades or professions. CONSULTANT agrees that it is supplying professional Services, findings, and/or recommendations in the performance of this Contract and agrees with AUTHORITY that the same shall conform to high professional engineering and environmental principles and standards that are generally accepted in the State of California.

Article 17 Proprietary Rights/Confidentiality

- 17.1 If, as a part of the Contract, CONSULTANT is required to produce materials, documents, data or information (“Products”), then CONSULTANT, if requested by AUTHORITY, shall deliver to

AUTHORITY the original of all such Products which shall become the property of AUTHORITY.

- 17.2 All materials, documents, data or information obtained from AUTHORITY's data files or any AUTHORITY medium furnished to CONSULTANT in the performance of this Contract will at all times remain the property of AUTHORITY. Such data or information may not be used or copied for direct or indirect use outside of these services by CONSULTANT without the express written consent of AUTHORITY.
- 17.3 Except as reasonably necessary for the performance of Services, CONSULTANT and its employees and agents shall hold in confidence the materials and information referred to in this Article 17, Proprietary Rights/Confidentiality, which are produced by CONSULTANT for AUTHORITY in the performance and completion of CONSULTANT's Services under the Contract, until released in writing by AUTHORITY, except to the extent such materials and information become a part of public domain information through no fault of CONSULTANT, or its employees or agents.
- 17.4 CONSULTANT shall not use AUTHORITY's name or photographs of the Project in any professional publication, magazine, trade paper, newspaper, seminar or other medium without first receiving the express written consent of AUTHORITY.
- 17.5 All press releases relating to the Project or this Contract, including graphic display information to be published in newspapers, magazines, and other publications, are to be made only by AUTHORITY unless otherwise agreed to by CONSULTANT and AUTHORITY.
- 17.6 CONSULTANT agrees that it, and its employees, agents, and subcontractors will hold confidential and not divulge to third parties without the prior written consent of AUTHORITY, any information obtained by CONSULTANT from or through AUTHORITY in connection with CONSULTANT's performance of this Contract, unless (a) the information was known to CONSULTANT prior to obtaining same from AUTHORITY pursuant to a prior Contract; or (b) the information was at the time of disclosure to CONSULTANT, or thereafter becomes part of the public domain, but not as a result of the fault or an unauthorized disclosure of CONSULTANT or its employees, agents, or subcontractors, or (c) the information was obtained by CONSULTANT from a third party who did not receive the same, directly or indirectly, from AUTHORITY and who had, to CONSULTANT's knowledge and belief, the right to disclose the same.

Article 18 Terminations

- 18.1 Termination for Convenience. AUTHORITY shall have the right at any time, with or without cause, to terminate further performance of Services by written notice to CONSULTANT specifying the date of termination. On the date of such termination stated in said notice, CONSULTANT shall discontinue performance of Services and shall preserve work in progress and completed work ("Work"), pending AUTHORITY'S instruction, and shall turn over such Work in accordance with AUTHORITY's instructions.
- 18.1.1 CONSULTANT shall deliver to AUTHORITY, in accordance with AUTHORITY'S instructions, all Products prepared by CONSULTANT or its subcontracts or furnished to CONSULTANT by AUTHORITY. Upon such delivery, CONSULTANT may then invoice AUTHORITY for payment in accordance with the terms hereof.
- 18.1.2 If CONSULTANT has fully and completely performed all obligations under this Contract up to the date of termination, CONSULTANT shall be entitled to receive from AUTHORITY as complete and full settlement for such termination a pro rata share of the Contract cost and a pro rata share of any fixed fee, for such Services satisfactorily executed to the date of termination.
- 18.1.3 CONSULTANT shall be entitled to receive the actual cost incurred by CONSULTANT to return CONSULTANT's field tools and equipment, if any, to it or its suppliers' premises, or to turn over Work and Products in accordance with AUTHORITY's instructions plus the actual cost necessarily incurred in effecting the termination.
- 18.2 Termination for Cause. In the event CONSULTANT shall file a petition in bankruptcy, or shall make a general assignment for the benefit of its creditors, or if a petition in bankruptcy shall be filed against CONSULTANT or a receiver shall be appointed on account of its solvency, or if CONSULTANT shall default in the performance of any express obligation to be performed by it under this Contract and shall fail to immediately correct (or if immediate correction is not possible, shall fail to commence and diligently continue action to correct) such default within ten (10) calendar days following written notice thereof, AUTHORITY may, without prejudice to any other rights or remedies AUTHORITY may have, (a) hold in abeyance further payments to CONSULTANT; (b) stop any Services of CONSULTANT or its subcontractors related to such failure until such failure is remedied; and/or

(c) terminate this Contract by written notice to CONSULTANT specifying the date of termination. In the event of such termination by AUTHORITY, AUTHORITY may take possession of the Products and finish Services by whatever method AUTHORITY may deem expedient. A waiver by AUTHORITY of one default of CONSULTANT shall not be considered to be a waiver of any subsequent default of CONSULTANT, nor be deemed to waive, amend, or modify any term of this Contract.

18.2.1 In the event of termination CONSULTANT shall deliver to AUTHORITY all finished and unfinished Products prepared by CONSULTANT or its subcontractors or furnished to CONSULTANT by AUTHORITY.

18.3 All claims for compensation or reimbursement of costs under any of the foregoing provisions shall be supported by documentation submitted to AUTHORITY, satisfactory in form and content to AUTHORITY and verified by AUTHORITY. In no event shall CONSULTANT be entitled to any prospective profits or any damages because of such termination.

Article 19 Stop Work Orders

Upon failure of CONSULTANT or its subcontractors to comply with any of the requirements of this Contract, AUTHORITY shall have the authority to stop any Services of CONSULTANT or its subcontractors affected by such failure until such failure is remedied or to terminate this Contract in accordance with Article 18, Termination. No part of the time lost due to any such stop orders shall be made the subject of a claim for extension of time or for increased costs or damages by CONSULTANT.

Article 20 Claims

CONSULTANT shall give AUTHORITY written notice within seven (7) days after the happening of any event which CONSULTANT believes may give rise to a claim by CONSULTANT for an increase in the Contract amount or in the scheduled time for performance. Within fourteen (14) days after the happening of such events, CONSULTANT shall supply AUTHORITY with a statement supporting CONSULTANT's claim, which statement shall include CONSULTANT's detailed estimate of the change in Contract amount and scheduled time occasioned thereby. AUTHORITY shall not be liable for, and CONSULTANT hereby waives, any claim or potential claim of CONSULTANT of which CONSULTANT knew or should have known and which was not reported by CONSULTANT in accordance with the provisions of this Article. CONSULTANT agrees to continue performance of Services during the time any claim of CONSULTANT hereunder is pending. AUTHORITY shall not be bound to any adjustments in the Contract amount or scheduled time for CONSULTANT's claim unless expressly agreed to by AUTHORITY in writing.

and any such adjustments in the Contract amount so agreed to in writing shall be paid to CONSULTANT by AUTHORITY. No claim hereunder by CONSULTANT shall be allowed if asserted after final payments under this Contract.

Article 21 Insurance

In order to accomplish the indemnification herein provided for, but without limiting the indemnification, CONSULTANT shall secure and maintain throughout the term of the Contract the following types of insurance with limits as shown:

- 21.1 Professional Liability Insurance coverage in an amount not less than \$1,000,000, per claim and in the aggregate. CONSULTANT shall secure and maintain this insurance throughout the term of this Contract and for a minimum of three (3) years after completion and acceptance of Services by AUTHORITY.
- 21.2 Workers' Compensation Insurance or state-approved self-insurance program in an amount and form to meet all applicable requirements of the Labor Code of the State of California, including Employers Liability with \$250,000 limits, covering all persons providing Services on behalf of CONSULTANT.
- 21.3 Comprehensive General Liability Insurance or Commercial General Liability Insurance, including coverage for Premises and Operations, Contractual Liability, Personal Injury Liability, Broad-Form Property Damage and Independent Contractors' Liability, in an amount of not less than \$1,000,000 per occurrence, combined single limit, and \$3,000,000 in the aggregate written on an occurrence form.

For products and completed operations a \$2,000,000.00 aggregate shall be provided.
- 21.4 Comprehensive Automobile Liability Coverage, including owned, non-owned and hired automobiles, in an amount of not less than \$1,000,000 per occurrence, combined single limit, and in the aggregate written on an occurrence form.
- 21.5 Proof of Coverage. CONSULTANT shall immediately furnish certificates of insurance to AUTHORITY evidencing the insurance coverage required above, prior to the commencement of performance of Services hereunder, and such certificates shall include San Bernardino Associated Governments/San Bernardino County Transportation Authority and Fluor Corporation (project administration consultant) as additional insured on Comprehensive General Liability Insurance or Commercial General

Liability Insurance and auto insurance. The certificates shall provide that such insurance shall not be terminated without thirty (30) days written notice to AUTHORITY, and CONSULTANT shall maintain such insurance from the time CONSULTANT commences performance of Services hereunder until the completion of such Services.

Article 22 Indemnity

CONSULTANT agrees to indemnify, hold harmless, and defend, with counsel approved by AUTHORITY, AUTHORITY, and their officers, employees (past and present), agents, and representatives including Fluor Corporation, from and against:

- 22.1 Any claim, cause of action, liability, loss, cost or expense arising from infringement or improper appropriation or use by AUTHORITY of trade secrets, proprietary information, know-how, copyright rights or inventions, arising out of the use of methods, processes, designs, information, or other items furnished or communicated to AUTHORITY by CONSULTANT in connection with performance of Services; and
- 22.2 Any claim, cause of action, liability, loss, cost or expense, on account of injury to or death of persons or damage to or loss of property which arises out of or is alleged to arise out of the negligence or wrongful acts of CONSULTANT or its subcontractors, employees, or agents, in the performance of Services, and includes any and all expenses, including attorneys' fees, incurred by AUTHORITY for legal action to enforce CONSULTANT's indemnification obligations hereunder.

Article 23 Damages due to Errors and Omissions

- 23.1 Architect-Engineer Consultants shall be responsible for the professional quality, technical accuracy, and coordination of all services required under this Agreement. A CONSULTANT may be liable for AUTHORITY costs resulting from errors or deficiencies in designs furnished under its Agreement.
- 23.2 When a modification to a construction contract is required because of an error or deficiency in the services provided under this A&E Agreement, the contracting officer (with the advice of technical personnel and legal counsel) shall consider the extent to which the A&E Consultant may be reasonably liable.
- 23.3 AUTHORITY's contracting officer shall enforce the liability and collect the amount due, if the recoverable cost will exceed the administrative cost involved or is otherwise in the AUTHORITY's interest. The contracting officer shall include in the Agreement file a written statement

of the reasons for the decision to recover or not to recover the costs from the CONSULTANT.

Article 24 Ownership of Drawings and Data

All drawings, specifications reports and other data developed by CONSULTANT under this Contract shall become the property of AUTHORITY when prepared, whether delivered to AUTHORITY or not.

Article 25 Subcontracts

- 25.1 CONSULTANT shall not subcontract performance of all or any portion of Services under this Contract, excepting to subcontractors listed in the CONSULTANT's proposal, without first notifying AUTHORITY of the intended subcontracting and obtaining AUTHORITY's Project Manager's approval in writing of the subcontracting and the subcontractor. The definition of subcontractor and the requirements for subcontractors hereunder shall include all lower-tier subcontracts.
- 25.2 CONSULTANT agrees that any and all subcontractors of CONSULTANT will comply with the terms of this Contract applicable to the portion of Services performed by them. If requested by AUTHORITY, CONSULTANT shall furnish AUTHORITY a copy of the proposed subcontract for AUTHORITY's approval of the terms and conditions thereof and shall not execute such subcontract until AUTHORITY has approved such terms and conditions. AUTHORITY approval shall not be unreasonably withheld.
- 25.3 Approval by AUTHORITY of any Services to be subcontracted and the subcontractor to perform said Services will not relieve CONSULTANT of any responsibility or liability in regard to the acceptable and complete performance of said Services.
- 25.4 Any substitution of subcontractors must be approved in writing by AUTHORITY's Contract Manager.

Article 26 Inspection and Access

AUTHORITY shall at all times have access during normal business hours to CONSULTANT's operations and products wherever they are in preparation or progress, and CONSULTANT shall provide sufficient, safe, and proper facilities for such access and inspection thereof. Inspection or lack of inspection by AUTHORITY, shall not be deemed to be a waiver of any of their rights to require CONSULTANT to comply with the Contract or to subsequently reject unsatisfactory Services or products.

Article 27 Independent Contractor

CONSULTANT is and shall be at all times an independent contractor. Accordingly, all Services provided by CONSULTANT shall be done and performed by CONSULTANT under the sole supervision, direction and control of CONSULTANT. AUTHORITY shall rely on CONSULTANT for results only, and shall have no right at any time to direct or supervise CONSULTANT or CONSULTANT's employees in the performance of Services or as to the manner, means and methods by which Services are performed. All workers furnished by CONSULTANT pursuant to this Contract, and all representatives of CONSULTANT, shall be and remain the employees or agents of CONSULTANT or of CONSULTANT's subcontractor(s) at all times, and shall not at any time or for any purpose whatsoever be considered employees or agents of AUTHORITY.

Article 28 Precedence

- 28.1 The Contract documents consist of these General Terms and Conditions and Attachment "A", Scope of Services, Attachment "B", Billing Rate Schedule, CONSULTANT's Statement of Qualifications and AUTHORITY's Request for Qualifications which are incorporated herein by reference.
- 28.2 The following order of precedence shall apply:
- 28.2.1 This Contract, its General Terms and Conditions, and Attachments
 - 28.2.2 CONSULTANT's Statement of Qualifications
 - 28.2.3 AUTHORITY's Request for Qualifications
- 28.3 In the event of an express conflict between the documents listed in Article 28.2, or between any other documents which are a part of the Contract, CONSULTANT shall notify AUTHORITY immediately and shall comply with AUTHORITY's resolution of the conflict.

Article 29 Communications and Notices

- 29.1 Any and all notices permitted or required to be given hereunder shall be deemed duly given (a) upon actual delivery, if delivery is personally made; or (b) upon delivery into the United States Mail if delivery is by postage paid certified mail (return receipt requested), fax or private courier. Each such notice shall be sent to the respective party at the address indicated below or to any other address as the respective parties may designate from time to time by a notice given in accordance with this Article. A change in address may be made by notifying the other party in writing.

For CONSULTANT:

Name: [CONSULTANT]

Address: []

Attn: []

Phone: []

Fax: []

For AUTHORITY:

Name: San Bernardino Associated Governments

Address: 1170 W. 3rd Street, 2nd Floor
San Bernardino, CA 92410-1715

Attn: Mr. Garry Cohoe

Phone: (909) 884-8276

Fax: (909) 885-4407

- 29.2 All communications pursuant to or in connection with this Contract shall be marked with AUTHORITY's Contract and job numbers.

Article 30 Disputes

- 30.1 In the event any dispute arises between the parties hereto under or in connection with this Contract (including but not limited to disputes over payments, reimbursements, costs, expenses, Services to be performed, Scope of Services and/or time of performance), the dispute shall be decided by the Contract Manager of AUTHORITY or his duly authorized representative within thirty (30) calendar days after notice thereof in writing which shall include a particular statement of the grounds of the dispute. If CONSULTANT does not agree with the decision, then CONSULTANT shall have thirty (30) calendar days after receipt of the decision in which to file a written appeal thereto with the Executive Director of AUTHORITY. If the Executive Director fails to resolve the dispute in a manner acceptable to CONSULTANT, then such appeal shall be decided by a court of competent jurisdiction.
- 30.2 During resolution of the dispute, CONSULTANT shall proceed with performance of this Contract with due diligence.

Article 31 Gratuities

CONSULTANT, its employees, agents, or representatives shall not offer or give to an officer, official, or employee of AUTHORITY or Fluor Corporation, gifts, entertainment, payments, loans, or other gratuities to influence the award of a Contract or obtain favorable treatment under a Contract.

Article 32 Review and Acceptance

- 32.1 All Services performed by CONSULTANT shall be subject to periodic review and approval by the representatives of AUTHORITY at any and all places where such performance may be carried on. Failure of AUTHORITY to make such review, or to discover defective Work, shall not prejudice the rights of AUTHORITY at the time of final acceptance. All Services performed by CONSULTANT shall be subject to periodic and final review and acceptance by AUTHORITY upon completion of all Services.
- 32.2 When Services have been completed and the products have been delivered to AUTHORITY, CONSULTANT shall so advise AUTHORITY in writing. AUTHORITY acceptance shall be based on those provisions set forth in the Scope of Services, Attachment "A". Within thirty (30) working days of receipt of such notice, AUTHORITY shall give CONSULTANT written notice of final acceptance or any Services and Work that have yet to be completed or which are unsatisfactory.
- 32.3 In the event AUTHORITY does not accept Services or Products as submitted then upon their subsequent completion, CONSULTANT shall again so notify AUTHORITY, and within the above specified time period AUTHORITY shall give CONSULTANT written notice of final acceptance or notice that the specified unfinished Services or Products have not yet been completed or are still not satisfactory. In the latter instance, the foregoing procedures with respect to such specified unfinished Services or Products will be repeated. Final acceptance shall not constitute a waiver or abandonment of any rights or remedies available to AUTHORITY under this Contract or by law.

Article 33 Safety

CONSULTANT shall comply strictly with all local, municipal, state, and federal safety and health laws, orders and regulations applicable to CONSULTANT's operations in the performance of Services hereunder.

Article 34 Assignment

CONSULTANT shall not assign this Contract wholly or in Part, voluntarily, by operation of law, or otherwise without first obtaining the written consent of AUTHORITY. Subject to the foregoing, the provisions of this Contract shall extend to the benefit of and be binding upon the successors and assigns of the parties hereto.

Article 35 Amendments

This Contract may only be changed by an amendment duly executed by CONSULTANT and AUTHORITY except, that changes to the Contract to implement administrative changes such as approved changes in key personnel may be made by administrative amendment signed by CONSULTANT and AUTHORITY's Contracts Manager or other duly authorized representative.

Article 36 Governing Law and Venue

This Contract shall be subject to the laws and jurisdiction of the State of California. The parties acknowledge and agree that this Contract was entered into and intended to be performed in whole or substantial part in San Bernardino County, California. The parties agree that the venue for any action or claim brought by any party to this Contract will be the Central District of San Bernardino County. Each party hereby waives any law or rule of court that would allow them to request or demand a change of venue. If any action or claim concerning this Contract is brought by any third party, the parties hereto agree to use their best efforts to obtain a change of venue to the Central District of San Bernardino County.

Article 37 Suspension of Services

37.1 AUTHORITY may at any time, and from time to time, by written Notice ("Suspension of Services Order") to CONSULTANT, suspend further performance of Services by CONSULTANT. Said Suspension of Services Order shall specify the date of suspension and the estimated duration of the suspension. Upon receiving any such Suspension of Services Order, CONSULTANT shall promptly suspend further performance of Services to the extent specified, and during the period of such suspension shall properly care for and protect all Services in progress. Such suspensions shall not exceed more than one hundred twenty (120) consecutive calendar days each, nor aggregate more than one hundred eighty (180) calendar days; and, if they do, CONSULTANT may, if it so elects by notifying AUTHORITY in writing, consider that this Contract has been terminated for convenience of AUTHORITY. If the Contract has not been so terminated by CONSULTANT, then AUTHORITY may at any time withdraw the Suspension of Services Order as to all or part of the suspended Services by written notice to CONSULTANT specifying the effective date and scope of withdrawal, and CONSULTANT shall resume diligent performance of Services for which the suspension is withdrawn on the specified effective date of withdrawal.

37.2 If CONSULTANT believes that any such suspension or withdrawal of suspension justifies modification of the Contract compensation, CONSULTANT may request additional compensation and

CONSULTANT and AUTHORITY will attempt to negotiate a mutually acceptable change in compensation and amend the Contract accordingly. If CONSULTANT and AUTHORITY are unable to agree on a change in compensation, CONSULTANT may request adjustments to either the Contract amount or the scheduled time for performance in accordance with Article 20, Claims herein. In no event shall CONSULTANT be entitled to any prospective profits or any damages because of such suspension.

Article 38 Contingent Fee

The CONSULTANT warrants, by execution of this Contract, that no person or selling agency has been employed or retained to solicit or secure this Contract upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees or bona fide established commercial or selling agencies maintained by the CONSULTANT for the purpose of securing business. For breach or violation of this warranty, AUTHORITY has the right to annul this Contract without liability, pay only for the value of Services actually performed, or in its discretion, to deduct from the Contract price or consideration, or otherwise recover, the full amount of such commission, percentage, brokerage, or contingent fee.

Article 39 Location of Performance

NOT USED

Article 40 Entire Document

- 40.1 This Contract and its attachments constitute the sole and only agreement governing Services and supersedes any prior understandings, written or oral, between the parties respecting the within subject matter. All previous proposals, offers, and other communications, written or oral, relative to this Contract, are superseded except to the extent that they have been incorporated into this Contract.
- 40.2 No agent, employee or representative of AUTHORITY has any authority to bind AUTHORITY to any affirmation, representation or warranty outside of, or in conflict with, the stated terms of this Contract, and CONSULTANT hereby stipulates that it has not relied, and will not rely, on same.
- 40.3 As this Contract was jointly prepared by both parties, the language in all parts of this Contract will be construed, in all cases, according to its fair meaning, and not for or against either party.

Article 41 Attorney's Fees

If any legal action is instituted to enforce or declare any party's rights hereunder, each party, including the prevailing party, must bear its own costs and attorneys' fees. This paragraph shall not apply to those costs and attorneys' fees directly arising from any third party legal action against a party hereto and payable under Article 22, Indemnity.

IN WITNESS WHEREOF, the parties hereto have executed this Contract on the day and year below written, but effective as of the day and year first set forth above.

CONSULTANT

By: _____

Date: _____

San Bernardino Associated Governments

By: _____
Lawrence E. Dale, President
SANBAG Board of Directors

Date: _____

APPROVED AS TO LEGAL FORM:

By: _____
Jean-Rene Basle
SANBAG Counsel